AFCTN Test Report 94-014

AFCTB-ID 93-025

Technical Publication Transfer

Using:

Northrop Corporation's Data

MIL-D-28000A (IGES)
MIL-M-28001A (SGML)
MIL-R-28002A (Raster)
MIL-D-28003 (CGM)

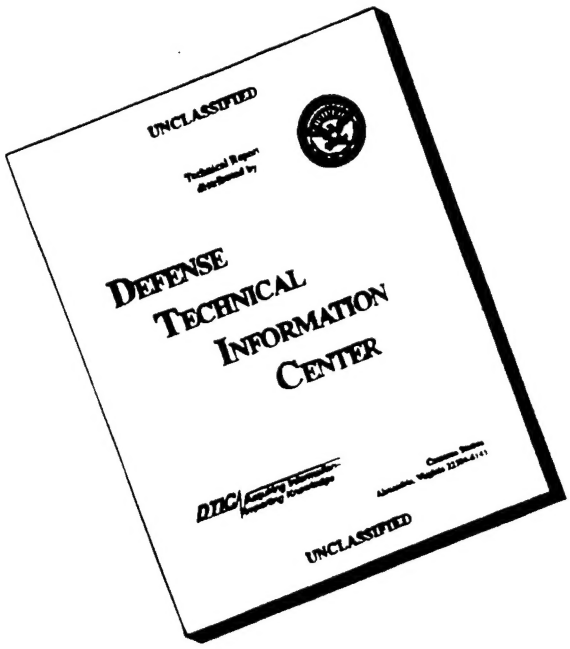
Quick Short Test Report

25 March 1993

Prepared for

Electronic Systems Center

DISCLAIMER NOTICE



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25 March 1993

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Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develope increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze Northrop Corporation's interpretation and use of the CALS standards in transferring technical publications data. Northrop used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFCTB 93-25

Date of Evaluation: 25 March 1993

Evaluator:
George Elwood
Air Force CALS Test Bed
DET 2 HQ ESC/AV-2P
4027 Colonel Glenn Hwy
Suite 300
Dayton OH 45431-1672

Data Originator:
John Kent
Northrop Corporation
B-2 Division
M/S L591/GK
8900 East Washington Blvd
Pico Rivera CA 90660
(310) 948-0624

Data Description: Technical Manual Test
- 3 Document Declaration files
- 3 Document Type Definitions (DTD)
- 4 Initial Graphics Exchange Specification (IGES) files
- 3 Text/Standard Generalized Markup Language (SGML) files
- 1 Raster file
- 5 Computer Graphics Metafile (CGM) files

Data Source System:

IGES

HARDWARE
Unknown

SOFTWARE
Unknown

TEXT/SGML

HARDWARE

Unknown

SOFTWARE

Unknown

Raster

HARDWARE

Unknown

SOFTWARE

Unknown

CGM

HARDWARE

Unknown

SOFTWARE

Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

AFCTN *Tapetool v1.2.8 UNIX*
XSoft *CAPS/CALS v40.4*
Texas Instrument (TI) *Tapetool v1.0.1*

MIL-D-28000 (IGES)

Sun SparcStation 2

ArborText *iges2draw*
IGES Data Analysis (IDA) *Parser/Verifier v92*
IDA *IGESView v3.05*
International TechneGroup Incorporated (ITI) *IGES/Works v1.3*

MIL-M-28001 (SGML)

Cheetah Gold 486

Exoterica *XGMLNormalizer v1.2e3.2*
Public Domain *sgmls*

MIL-R-28002 (Raster)

SUN SparcStation 2
Cheetah

MIL-D-28003 (CGM)

SUN SparcStation 2
- ArborText *cgm2draw*
- Island Graphics' *IslandDraw v3.0*

Cheetah Gold 486
- Advanced Technology Center (ATC) *MetaView R 1.12*
- ATC *MetaCheck R 2.05*
- Software Publishing Corporation (SPC) *Harvard Graphics v3.05*
- Corel *Ventura Publisher*

Standards Tested:

MIL-STD-1840A
MIL-D-28000A
MIL-M-28001A
MIL-R-28002A
MIL-D-28003

3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was not marked with the magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3. When the commercial packing label was removed, the warning label was located.

The tape was enclosed in a barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Enclosed in the box was a packing list showing all files recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTN *Tapetool v1.2.8* utility. No errors were encountered while evaluating the contents of the tape labels.

The tape was run through TI's version of *Tapetool* with no reported errors.

The tape was read using XSoft's *CAPS read1840A* without a reported error.

3.2.2 Declaration and Header Fields

No errors were reported in the Document Declaration file or data file headers.

The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

4. IGES Analysis

The tape contained four IGES files. These files were evaluated using IDA's *Parser* and *Verifier* for CALS Class I. This utility reported that these files meet the CALS MIL-D-28000A specification. A few basic IGES errors were note. The logs for this procedure are located in the Appendix to this report.

The AFCTB has several tools for viewing IGES files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The files were converted using ArborText's *iges2draw* utility. All files converted without a reported error. When the resulting files were read into Island Graphics' *Island Draw*, file D002Q004 and Q005 did not display correctly. The images were offset to the left. The remaining files were handled without a problem.

The files were read into IDA's *IGESView* without a reported problem. All files displayed and printed without a noted error.

The files were read into ITI's *IGESWorks* without a reported problem. All files displayed and printed without a noted error.

The IGES files meet the CALS MIL-D-28000A, Class I specification.

5. SGML Analysis

The tape contained three DTD and three Text files. The DTD's were noted as being the same with the exception of graphic calls. All of the graphics references were inserted into one file which was used for all operations.

The AFCTB has several parsers available for evaluating submitted DTD and Text files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. These products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings unless specified in the report. Changes to DTD or Text files required by each system are not documented in the report.

The Text and DTD files from this document were tested using Exoterica's *XGMLNormalizer* parser. No errors were reported by this program.

The Text and DTD files from these documents were evaluated using a new parser from Exoterica. This program reported several warnings.

The Text and DTD files from the tape were evaluated using McAfee & McAdam's *Sema Mark-it* parser. No errors were reported by this program.

The Text and DTD files from the tape were evaluated using the Public Domain *sgmls* parser. No errors were reported from this program.

The SGML files meet the CALS MIL-M-28001A specification.

6. Raster Analysis

The tape contained one type II Raster file. The AFCTB currently has no capability to read type II files. This file was sent to the AFCTN Raster expert for evaluation their comments are shown below.

6.1 LLNL Comment

File D003R001 was retrieved from the Air Force CALS Test Bed file server and copied to the LLNL/CTNO Test Bed, using FTP in the Binary mode.

The 2048 byte CALS data file header was dumped to determine the structure and content of the Raster image file. The header consisted of the appropriate ASCII records and indicated the data content was to be a tiled Raster image as specified by the CALS MIL-R-28002A Type-II standard.

The file was opened by ODATOOL on the Sun 3/60 Test Bed. The tool stripped off the ASCII header and attempted to parse the ASN-1 data stream.

An error in length encoding indicated 6 bytes in the data stream. The ODATOOL parser was not able to reconcile the ODA structure, subsequently no image content could be displayed.

To determine the context in which the error was reported, the ASN-1 binary data stream must be hand decoded to determine where the actual discrepancy is. Fortunately, the error occurs very close to the beginning of the file. This type of error checking is not always a reasonable strategy.

Manually decoding the data string produced the following:

```
Hex             A0        70
Binary          10100000  01110000
ASN/ODA
        class      10 -content-specific
        struct.    1 -constructed
        tag #         00000 -(0) DAP-object
        Length           0 -short encoding
```

```
        def.            1110000 -length=160 oct (112 dec)

   Hex              A1        01        31
   Binary           10100001  00000001
   ASN/ODA
       class      10 -content-specific
       struct.     1 -constructed
       tag #       00001 -(1) specific-layout-structure
       Length            0 -short encoding
       def.              0000001 -lenght= 1 oct
```

Apparently ODATOOL is being confused by the constructed structure of this data type. The NumericString of "1" is being interpreted as a tag, and is invalid in this context.

The ODA documentation [ISO-8613-5 (5.6 Document Profile Descriptor)] specifies the document profile descriptor set as including the specific-layout-structure, which is identified by a tag of [1]. This document profile parameter consists of a NumericString with the value of "1" indicating the object as present. This type is identified as IMPLICIT and, as per ISO-8825 (18.2 If "implicit"...), shall be encoded as primitive:

```
   Hex              81        01        31
   Binary           10000001  00000001  00110001
   ASN/ODA
     class      10 -content-specific
     struct.     0 -primitive
     tag #       00001 -(1) specific-layout-structure
     Length            0 -short encoding
     def.              0000001 -length 1 oct (1 dec)
                       00110001 -"1" (present)
```

If there are any further issues, please contact me at (510)422-0582 or on Internet at mitsch@lance.tis.llnl.gov.

Nick Mitschkowetz
Lead Raster Analyst
CTNO/LLNL

7. CGM Analysis

This tape contained five CGM files. The files were evaluated at the AFCTB and by the AFCTN CGM expert at LLNL.

The files were evaluated using ATC's *MetaCheck* with CALS options. This utility reported that the files meet the CALS MIL-D-28003 specification.

The files were evaluated using the AFCTN beta *validcgm* utility. This program reported some errors in all files.

The AFCTB has several tools for viewing CGM files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor and indication of CALS capability. All operations were performed using the default settings.

The files were viewed on screen using ATC's *MetaView*. The version in use in the AFCTB is not the most current and had problems displaying the font correctly. Errors were generated by the two files which had text in them.

The files were converted using ArborText's *cgm2draw* utility with no reported errors. The resulting files were read into Island Graphics' *IslandDraw*, displayed and printed. With the exception of some font problems in file C104, the images appeared to be complete. The ArborText utility strips the color from the files so the images display in black and white.

The files were imported directly into Island Graphics' *IslandDraw* with no reported errors. Problems were noted with font and some lines in file C104. The image displayed in color.

The files were imported into Cadberry's *CADLeaf* with no reported errors. The images displayed in color. The displayed and printed images appeared to be correct.

The files were imported into SPC's *Harvard Graphics v3.05*. All five files had reported errors during the conversion with the exception of C108. The files displayed in color

but none of the images were usable.

An attempt to import the files into Corel's *Ventura Publisher* resulted in failure. Files C104 and C108 were reported as not being valid files. The other files converted but did not display.

The files were reported as meeting the CALS MIL-D-28003 specification.

7.1 LLNL Comments

Below are the comments provided by Bruce Garner on the LLNL staff. He evaluated these files at LLNL after an electronic transfer between the AFCTB and their facility.

c104.cgm: This file replicates the picture of the AFCTN Reference CGM, AFCTN-01rd.cgm, but it is not the same. It substitutes simpler elements for some of the elements used in the reference file. This is OK, except that the picture should indicate that it is a Northrop file. The Metafile description element does so, but that information may not be seen by the person using display software.. The file passes ATC's *MetaCheck 2.10* with the CALS option on. The file displays well with ATC's *MetaView 1.13* on a PC.

c105.cgm: The file passes *MetaCheck 2.10* with the CALS option on. The file displays well with *MetaView 1.13* on a PC.

c106.cgm: The file passes *MetaCheck 2.10* with the CALS option on. The file displays well with *MetaView 1.13* on a PC.

c107.cgm: The file passes *MetaCheck 2.10* with the CALS option on. This file contains two Line Type elements with negative values. These are legal under MIL-D-28003, but are not legal under MIL-D-28003. Even if Northrop is delivering data under a contract calling for 28003, they should not use negative Line Type indices, as the same Line Types may be invoked with values registered with the ISO Registry of Graphical Items, which values are legal with all versions of the ISO standard and MIL-D-28003 as well. This will prevent problems in the future when there probably will not be

software that understands the negative (private) line types. The file displays well with *MetaView 1.13* on a PC.

c108.cgm: The file passes *MetaCheck 2.10* with the CALS option on. The file displays well with *MetaView 1.13* on a PC.

All files contain the character string, "MIL-D28003/BASIC-1", in the Metafile Description element, as required by MIL-D-28003. However, MIL-D-28003 is the current document. It requires the string, "MIL-D-28003/BASIC-1".

If Northrop is delivering to a contract that requires MIL-D-28003, they are technically OK. Even so, the use of negative values for Line Type index is poor practice. If they are delivering under the current MIL-D-28003, their CGM generator should be revised to give the updated string, "MIL-D-28003/BASIC-1.2", indicating full color metafiles, and they should abandon negative Line Type indices as noted.

8. Conclusions and Recommendations

In summary, the tape contruction from Northrop Corporation was correct. No errors were reported in the tape or CALS headers. The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

The IGES files meet the CALS MIL-D-28000A specification.

The Raster file does not meet the CALS MIL-R-28002A specification.

The SGML files and DTD meet the CALS MIL-M-28001A specification.

The CGM files meet the CALS MIL-D-28003 specification.

Because of the reported error in the Raster file, the tape does not meet the CALS MIL-STD-1840A requirements.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

```
Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Thu Mar 25 08:23:54 1993
MIL-STD-1840A File Catalog
File Set Directory: /cals/tapetool8/Set075
```

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D002	Document Declaration	D/00260	02048/000001	Extracted
D003	Document Declaration	D/00260	02048/000001	Extracted
D001T001	Text	D/00260	02048/000001	Extracted
D001G002	DTD	D/00260	02048/000034	Extracted
D001H003	Output Specification	D/00260	02048/000001	Extracted
D001C004	CGM	F/00080	00800/000006	Extracted
D001C005	CGM	F/00080	00800/000002	Extracted
D001C006	CGM	F/00080	00800/000002	Extracted
D001C007	CGM	F/00080	00800/000002	Extracted
D001C008	CGM	F/00080	00800/000002	Extracted
D002T001	Text	D/00260	02048/000001	Extracted
D002G002	DTD	D/00260	02048/000034	Extracted
D002H003	Output Specification	D/00260	02048/000001	Extracted
D002Q004	IGES	F/00080	02000/000012	Extracted
D002Q005	IGES	F/00080	02000/000573	Extracted
D002Q006	IGES	F/00080	02000/000033	Extracted
D002Q007	IGES	F/00080	02000/000042	Extracted
D003T001	Text	D/00260	02048/000001	Extracted
D003G002	DTD	D/00260	02048/000034	Extracted
D003H003	Output Specification	D/00260	02048/000001	Extracted
D003R004	Raster	F/00128	02048/000008	Extracted

```
Catalog Process terminated normally.
```

9.2 Tape Evaluation Log

```
Air Force CALS Test Network Tape Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Thu Mar 25 08:23:10 1993

ANSI Tape Import Log

VOL1ITDS01                  CONTROLLER                                        4

  Label Identifier: VOL1
  Volume Identifier: ITDS01
  Volume Accessibility:
  Owner Identifier:
  Label Standard Version: 4

HDR1D001            ITDS0100010001000100 93073 93073 000000  CONTROLLER

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93073
  Expiration Date:  93073
  File Accessibility:
  Block Count: 000000
  Implementation Identifier:   CONTROLLER

HDR2D0204800260                                    00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

********** Tape Mark **********

  Actual Block Size Found = 2048 Bytes.
```

```
  Number of data blocks read = 1.

************ Tape Mark ***************

EOF1D001            ITDS0100010001000100 93073 93073 000001  CONTROLLER

  Label Identifier: EOF1
  File Identifier: D001
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93073
  Expiration Date:  93073
  File Accessibility:
  Block Count: 000001
  Implementation Identifier:   CONTROLLER

EOF2D0204800260                                    00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

                    <<<<< PART OF LOG REMOVED HERE >>>>>

************ Tape Mark ***************

HDR1D003R004        ITDS0100010022000100 93073 93073 000000  CONTROLLER

  Label Identifier: HDR1
  File Identifier: D003R004
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0022
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93073
  Expiration Date:  93073
  File Accessibility:
  Block Count: 000000
```

```
  Implementation Identifier:   CONTROLLER

HDR2F0204800128                                    00

  Label Identifier: HDR2
  Recording Format: F
  Block Length: 02048
  Record Length: 00128
  Offset Length: 00

************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 8.

************ Tape Mark ***************

EOF1D003R004         ITDS0100010022000100 93073 93073 000008  CONTROLLER

  Label Identifier: EOF1
  File Identifier: D003R004
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0022
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93073
  Expiration Date:  93073
  File Accessibility:
  Block Count: 000008
  Implementation Identifier:   CONTROLLER

EOF2F0204800128                                    00

  Label Identifier: EOF2
  Recording Format: F
  Block Length: 02048
  Record Length: 00128
  Offset Length: 00

************ Tape Mark ***************

************ Tape Mark ***************

############ End of Volume ITDS01 ###############
```

```
############ End Of Tape File Set ##############

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 0 warning(s),
and 0 note(s).
```

9.3 Tape File Set Validation Log

```
Air Force CALS Test Network File Set Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Thur Mar 25 08:23:54 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set075

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK
E. Washington Blvd., Pico Rivera, CA 90660-3765 (310) 948-0624
srcdocid: CALS_CGM_TEST2
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19930126
dstsys: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT, Techne
4027 Col. Glenn Highway, Dayton, OH 45431-1601
dstdocid: STPRO25.7
dstrelid: NONE
dtetrn: 19930314
dlvacc: NONE
filcnt: T1, H1, G1, C5
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: JOB GUIDE
docttl: graphics test

Found file: D001T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: CALS_CGM_TEST2
dstdocid: STPRO25.7
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D001T001_HDR
Saving Text Data File: D001T001_TXT
```

```
Found file: D001G002
Extracting DTD Header Records...
Evaluating DTD Header Records...

srcdocid: CALS_CGM_TEST2
dstdocid: STPRO25.7
notes: NONE

Saving DTD Header File: D001G002_HDR
Saving DTD Data File: D001G002_DTD

Found file: D001H003
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: CALS_CGM_TEST2
dstdocid: STPRO25.7
notes: NONE

Saving Output Specification Header File: D001H003_HDR
Saving Output Specification Data File: D001H003_OS

Found file: D001C004
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: CALS_CGM_TEST2
dstdocid: STPRO25.7
txtfilid: W
figid: NONE
srcgph: allreal.cgm
doccls: UNCLASSIFIED
notes: NONE

Saving CGM Header File: D001C004_HDR
Saving CGM Data File: D001C004_CGM

                    <<<<< PART OF LOG REMOVED HERE >>>>>

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.
```

```
No errors were encountered in Document D001.

Found file: D002
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK
E. Washington Blvd., Pico Rivera, CA 90660-3765 (310) 948-0624
srcdocid: CALS_IGES_TEST2
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19930126
dstsys: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT, Techne
4027 Col. Glenn Highway, Dayton, OH 45431-1601
dstdocid: STPRO25.9
dstrelid: NONE
dtetrn: 19930314
dlvacc: NONE
filcnt: T1, H1, G1, Q4
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: JOB GUIDE
docttl: graphics test

Found file: D002T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: CALS_IGES_TEST2
dstdocid: STPRO25.9
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D002T001_HDR
Saving Text Data File: D002T001_TXT

Found file: D002G002
Extracting DTD Header Records...
Evaluating DTD Header Records...

srcdocid: CALS_IGES_TEST2
dstdocid: STPRO25.9
notes: NONE

Saving DTD Header File: D002G002_HDR
```

```
Saving DTD Data File: D002G002_DTD

Found file: D002H003
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: CALS_IGES_TEST2
dstdocid: STPRO25.9
notes: NONE

Saving Output Specification Header File: D002H003_HDR
Saving Output Specification Data File: D002H003_OS

Found file: D002Q004
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: CALS_IGES_TEST2
dstdocid: STPRO25.9
txtfilid: W
figid: NONE
srcgph: apple2d.igs
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D002Q004_HDR
Saving IGES Data File: D002Q004_IGS

<<<<< PART OF LOG REMOVED HERE >>>>>

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D002.

Found file: D003
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK
E. Washington Blvd., Pico Rivera, CA 90660-3765 (310) 948-0624
srcdocid: CALS_RAS_TEST2
```

```
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19930126
dstsys: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT, Techne
4027 Col. Glenn Highway, Dayton, OH 45431-1601
dstdocid: STPRO25.11
dstrelid: NONE
dtetrn: 19930314
dlvacc: NONE
filcnt: T1, H1, G1, R1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: JOB GUIDE
docttl: graphics test

Found file: D003T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: CALS_RAS_TEST2
dstdocid: STPRO25.11
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D003T001_HDR
Saving Text Data File: D003T001_TXT

Found file: D003G002
Extracting DTD Header Records...
Evaluating DTD Header Records...

srcdocid: CALS_RAS_TEST2
dstdocid: STPRO25.11
notes: NONE

Saving DTD Header File: D003G002_HDR
Saving DTD Data File: D003G002_DTD

Found file: D003H003
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: CALS_RAS_TEST2
dstdocid: STPRO25.11
notes: NONE
```

```
Saving Output Specification Header File: D003H003_HDR
Saving Output Specification Data File: D003H003_OS

Found file: D003R004
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: CALS_RAS_TEST2
dstdocid: STPRO25.11
txtfilid: W
figid: NONE
srcgph: test2.ras
doccls: UNCLASSIFIED
rtype: 2
rorient: 000,270
rpelcnt: 002560,003584
rdensty: 0300
notes: NONE

Saving Raster Header File: D003R004_HDR
Saving Raster Data File: D003R004_GR4

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D003.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.
```

10. Appendix B - Detailed IGES Analysis

10.1 File D002Q004

10.1.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9325/q204.igs
 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)
 Today is March 25, 1993  12:09 AM

*** File and Product Name Information ***

   File name from sender     = 'apple2d.igs'
   File creation Date.Time   = '930225.134248'
   Model change Date.Time    = ''
   Author                    = 'tom'
   Department                = 'GRAPHICS'
   Product name from sender  = 'apple2d.igs'
   Destination product name  = 'apple2d.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale             =  1.0000E+00
```

```
   Unit flag              =  1
   Units                  =  'IN'
   Line weights           =  3
   Maximum line thickness =  1.152632E-02
   Minimum line thickness =  3.842107E-03
   Granularity            =  1.000000E-03
   Maximum coordinate     =  2.954101E+00

   Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

 Blank status: Visible                      41
               Blanked                       0

 Independence: Independent                  39
               Physically Subordinate        0
               Logically Subordinate         2
               Totally Subordinate           0

 Entity use:   Geometry                     39
               Annotation                    2
               Definition                    0
               Other                         0
               Logical/Positional            0
               2D parametric                 0
               Not Specified                 0

 Hierarchy:    Structure DE applies          0
               Subordinate DE applies       41
               Hierarchy property applies    0
               Not Specified                 0

*** Entity Occurrence Counts ***

 Entity   Form   Level    Count    Type
 ------   ----   -----    -----    ----

   106      11       0       24    Copious data - Piecewise planar, linear string(2D
   path)
   106      63       0        8    Simple closed planar curve
   110       0       0        6    Line
   404       0       0        1    Drawing
   406      16       0        1    Property - Drawing size
   410       0       0        1    View - Orthographic parallel

*** Entity Count by Level ***
```

Level	Count
0	41

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled	41

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
-	-	-	32	-	6	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

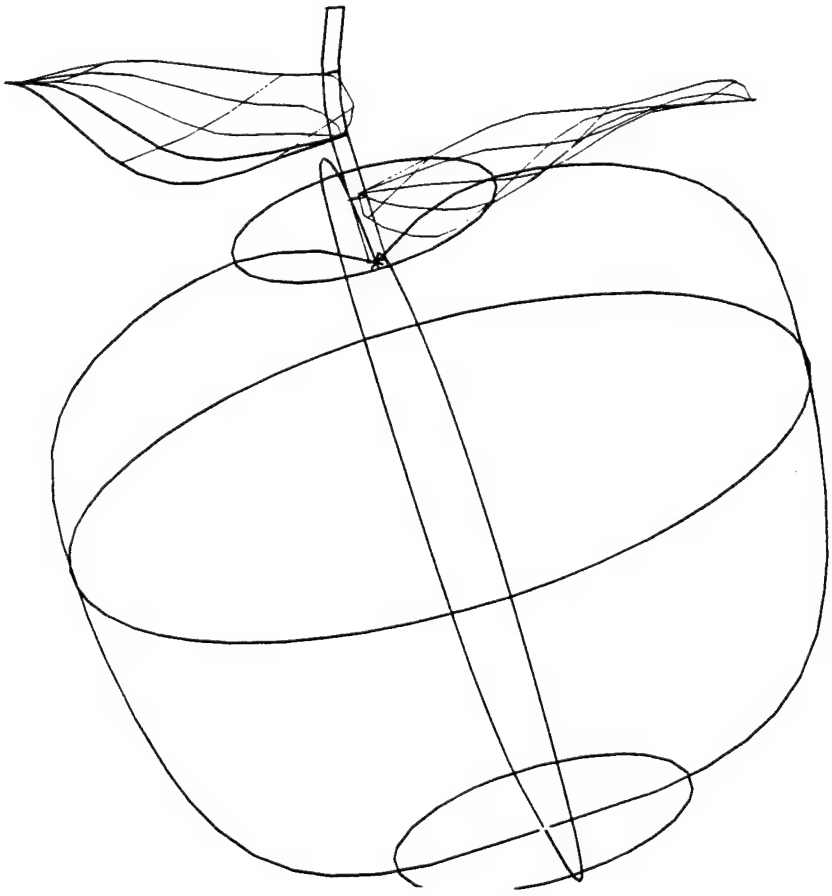
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

*** Line Widths Used in Data ***

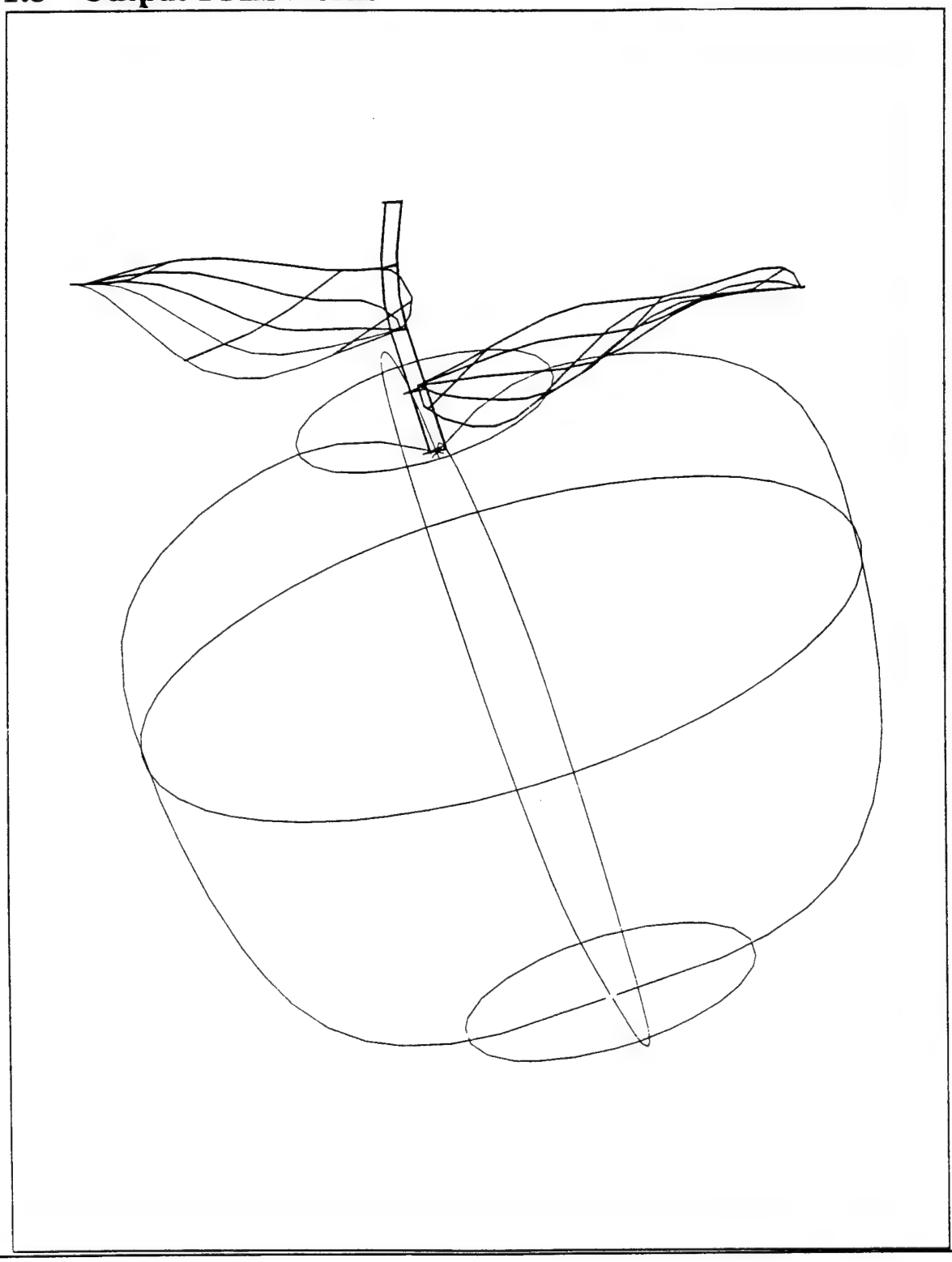
Weight	Count	Width

```
  Defaulted        31       (0.0038)
       2           10       (0.0077)

 *** Colors Used in Data ***

  Defaulted         3
        Red         8
      Green        30

 ********************************
 ******  ENTITY ANALYSIS  ******
 ********************************

 *** Entity type: 106

 *** Entity type: 110

  --      6 lines averaging 1.362447E-01 units --

 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406

 *** Entity type: 410

  Scale of view at D       1 is 1.000000E+00.
Orthographic View entity at D       1 has  0 clipping planes specified.
   XMIN = Not Set        XMAX = Not Set
   YMIN = Not Set        YMAX = Not Set
   ZMIN = Not Set        ZMAX = Not Set

 *** Message Summary ***

 *** Error Summary ***

     0 fatal errors
     0 severe errors
     0 errors
     0 warnings
     0 cautions
     0 nitpicks
     0 notes

 *** End of Analysis of /novell/9325/q204.igs ***
```

10.1.2 Output IGESView



10.1.3 Output IGESWorks



10.2 File D002Q005

10.2.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9325/q205.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 25, 1993  12:11 AM

*** File and Product Name Information ***

   File name from sender     = 'classic2d.igs'
   File creation Date.Time   = '930225.134304'
   Model change Date.Time    = ''
   Author                    = 'Boardhead'
   Department                = 'WINDY'
   Product name from sender  = 'classic2d.igs'
   Destination product name  = 'classic2d.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version  = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale            =  1.0000E+00
   Unit flag              =  2
```

```
   Units                    =  'MM'
   Line weights             =  3
   Maximum line thickness   =  3.520439E+00
   Minimum line thickness   =  1.173480E+00
   Granularity              =  1.000000E-03
   Maximum coordinate       =  8.782127E+02

   Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

 Blank status:  Visible                      2988
                Blanked                        0

 Independence:  Independent                  2986
                Physically Subordinate         0
                Logically Subordinate          2
                Totally Subordinate            0

 Entity use:    Geometry                     2518
                Annotation                    470
                Definition                      0
                Other                           0
                Logical/Positional              0
                2D parametric                   0
                Not Specified                   0

 Hierarchy:     Structure DE applies            0
                Subordinate DE applies       2988
                Hierarchy property applies      0
                Not Specified                   0

*** Entity Occurrence Counts ***

 Entity   Form   Level    Count    Type
 ------   ----   -----    -----    ----

   100       0       0      242    Circular arc
   104       1       0       15    Conic arc - ellipse
   106      11       0      123    Copious data - Piecewise planar, linear string(2D
   path)
   106      63       0       82    Simple closed planar curve
   110       0       0     2024    Line
   112       0       0       16    Parametric spline curve
   124       0       0       15    Transformation matrix
   212       0       0      468    General note
   404       0       0        1    Drawing
```

406	16	0	1	Property - Drawing size
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	2988

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 2988

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
237	-	15	205	-	1765	16	-	Solid
4	-	-	-	-	97	-	-	Dashed
1	-	-	-	-	145	-	-	Phantom
-	-	-	-	-	17	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	15	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

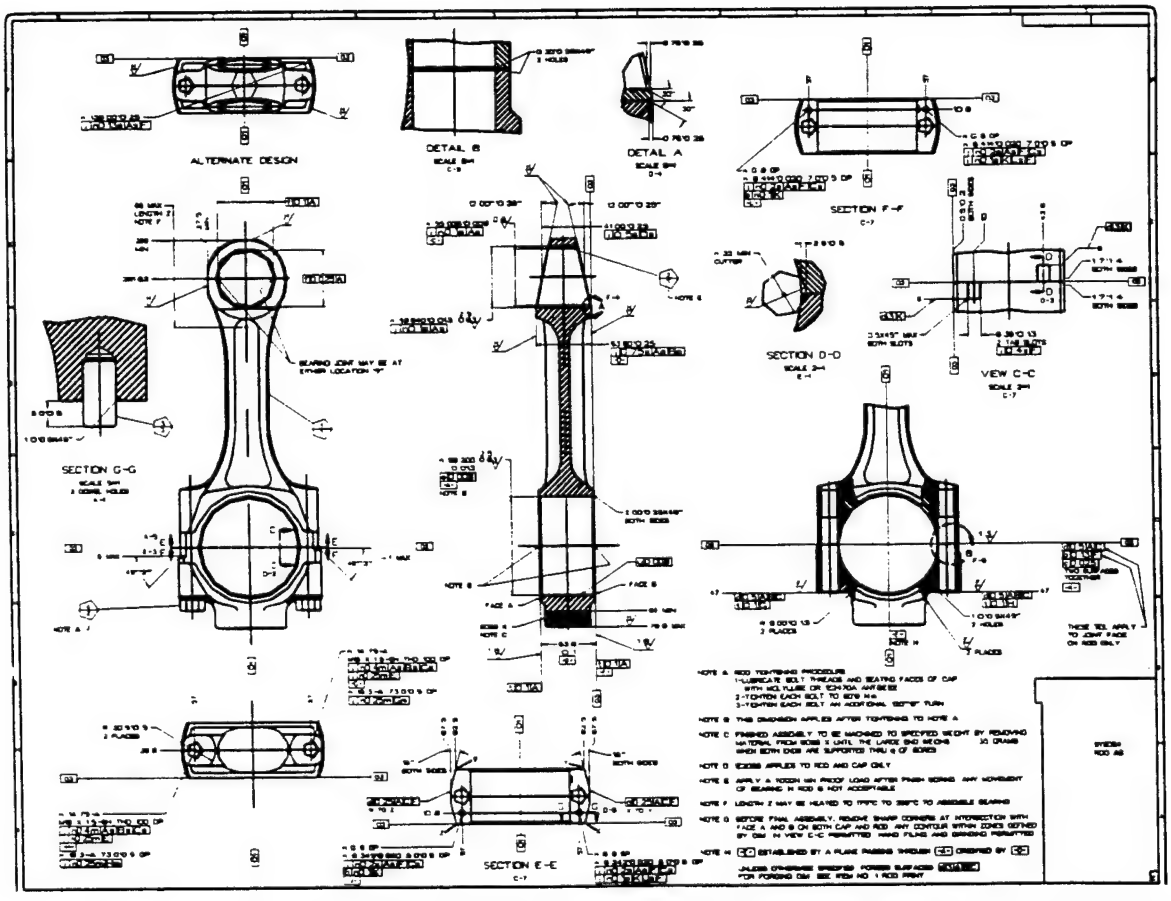
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

*** Line Widths Used in Data ***

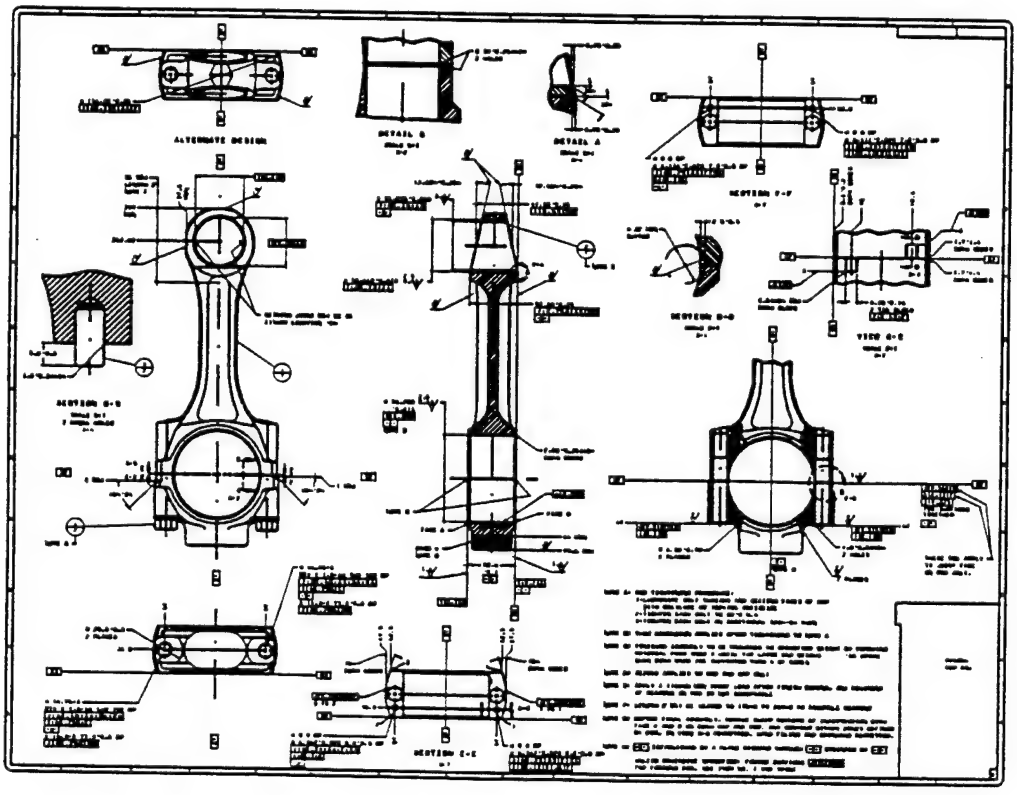
```
    Weight       Count      Width

 Defaulted       486       (1.1735)
      2         2179       (2.3470)
      1          323       (1.1735)

*** Colors Used in Data ***

 Defaulted        18
       Red       965
     Green         8
      Blue       106
    Yellow      1765
   Magenta        65
     White        61

********************************
******  ENTITY ANALYSIS  ******
********************************

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 8.961375E-03 at D    381.
WARNING 2039: End point off conic by 2.300953E-02 at D    381.

                    <<<<< PART OF LOG REMOVED HERE >>>>>

*** Entity type: 106

*** Entity type: 110

 --  2024 lines averaging 1.694140E+01 units --

*** Entity type: 112

*** Entity type: 124

15 transformation matrices, 15 non-zero translations.
NOTE    2341: 15 matrices contain translation information.

*** Entity type: 212

      468 text strings in data file.
      Average text aspect ratio in file is 1.0159167.
```

```
       Minimum text aspect ratio in file is 0.7623555.
       Maximum text aspect ratio in file is 1.1000000.

       FONTS USED IN FILE

       FONT    COUNT    NAME

          1      468    Default ASCII Style

 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406

 *** Entity type: 410

  Scale of view at D       1 is 1.000000E+00.
Orthographic View entity at D       1 has  0 clipping planes specified.
   XMIN = Not Set        XMAX = Not Set
   YMIN = Not Set        YMAX = Not Set
   ZMIN = Not Set        ZMAX = Not Set

 *** Message Summary ***

2015: 18 Mathematically incorrect definitions.

 *** Error Summary ***

     0 fatal errors
     0 severe errors
     0 errors
    18 warnings
     0 cautions
     0 nitpicks
     1 notes

 *** End of Analysis of /novell/9325/q205.igs ***
```

10.2.2 Output IGESView



10.2.3 Output IGESWorks



10.3 File D002Q006

10.3.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9325/q206.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 25, 1993  12:11 AM

*** File and Product Name Information ***

   File name from sender     = 'ientity.igs'
   File creation Date.Time   = '930225.134222'
   Model change Date.Time    = ''
   Author                    = 'KASSEL'
   Department                = 'Air Force CALS Test Network'
   Product name from sender  = 'ientity.igs'
   Destination product name  = 'ientity.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale             =  1.0000E+00
   Unit flag               =  1
```

```
    Units                  =  'IN'
    Line weights           =  1
    Maximum line thickness =  1.680104E-02
    Minimum line thickness =  1.680104E-02
CAUTION 2317: Maximum line thickness equal to minimum thickness.
    Granularity            =  1.000000E-03
    Maximum coordinate     =  1.690002E+01

    Drafting standard applicable to original data is not specified.

 *** Status Flag Summary ***

  Blank status: Visible                      200
                Blanked                        0

  Independence: Independent                  185
                Physically Subordinate        12
                Logically Subordinate          3
                Totally Subordinate            0

  Entity use:   Geometry                      67
                Annotation                   132
                Definition                     1
                Other                          0
                Logical/Positional             0
                2D parametric                  0
                Not Specified                  0

  Hierarchy:    Structure DE applies           0
                Subordinate DE applies       200
                Hierarchy property applies     0
                Not Specified                  0

 *** Entity Occurrence Counts ***

  Entity   Form   Level    Count    Type
  ------   ----   -----    -----    ----

    100       0       0        3    Circular arc
    102       0       0        1    Composite curve
    104       1       0        2    Conic arc - ellipse
    104       2       0        1    Conic arc - hyperbola
    104       3       0        1    Conic arc - parabola
    106      11       0        1    Copious data - Piecewise planar, linear string(2D
    path)
    106      63       0        1    Simple closed planar curve
    110       0       0       27    Line
```

112	0	0	2	Parametric spline curve
124	0	0	12	Transformation matrix
126	0	0	6	Rational B-spline curve
212	0	0	129	General note
230	0	0	1	Sectioned area (Standard Crosshatching)
308	0	0	1	Subfigure definition
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	1	Property - Intercharacter spacing
408	0	0	8	Single subfigure instance
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	200

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 200

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
3	1	4	2	-	27	2	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	12	-	-	-	Undefined
-	-	-	-	-	-	6	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

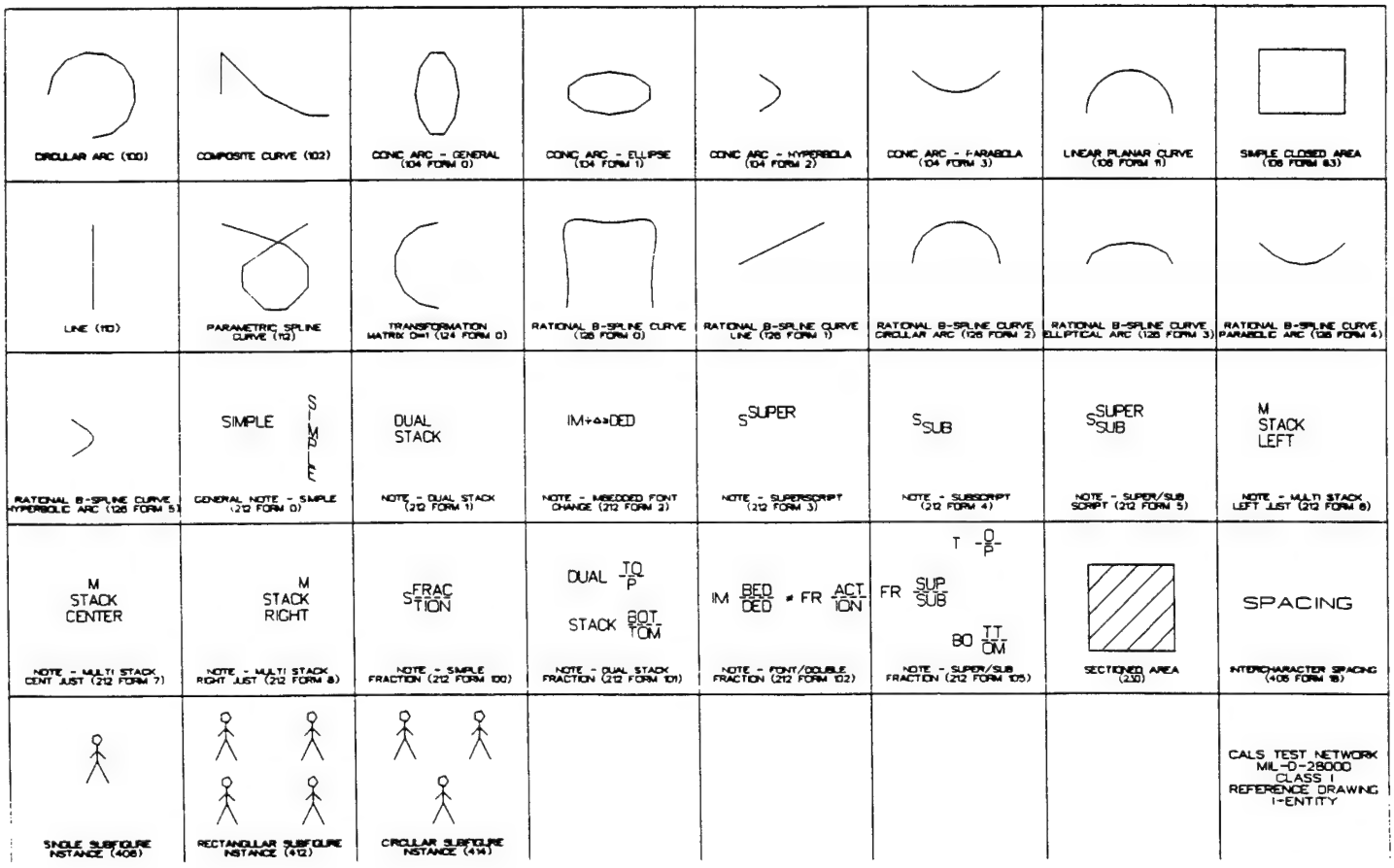
130	132	134	136	138	140	142	144

```
  -    -    -    -    -    -    -    -   Undefined
  -    -    -    -    -    -    -    -   Solid
  -    -    -    -    -    -    -    -   Dashed
  -    -    -    -    -    -    -    -   Phantom
  -    -    -    -    -    -    -    -   Center-line
  -    -    -    -    -    -    -    -   Dotted
  -    -    -    -    -    -    -    -   User defined

 *** Line Widths Used in Data ***

     Weight       Count      Width

  Defaulted       200       (0.0168)

 *** Colors Used in Data ***

  Defaulted        25
        Red       175

 ********************************
 ******  ENTITY ANALYSIS  ******
 ********************************

 *** Entity type: 100

 *** Entity type: 102

 *** Entity type: 104

WARNING 2265: Start point off conic by 2.666563E-03 at D      23.
WARNING 2265: Start point off conic by 1.456414E-03 at D      27.

 *** Entity type: 106

 *** Entity type: 110

  --     27 lines averaging 7.155336E+00 units --

 *** Entity type: 112

 *** Entity type: 124

12 transformation matrices, 4 non-zero translations.
NOTE     2341: 4 matrices contain translation information.

 *** Entity type: 126
```

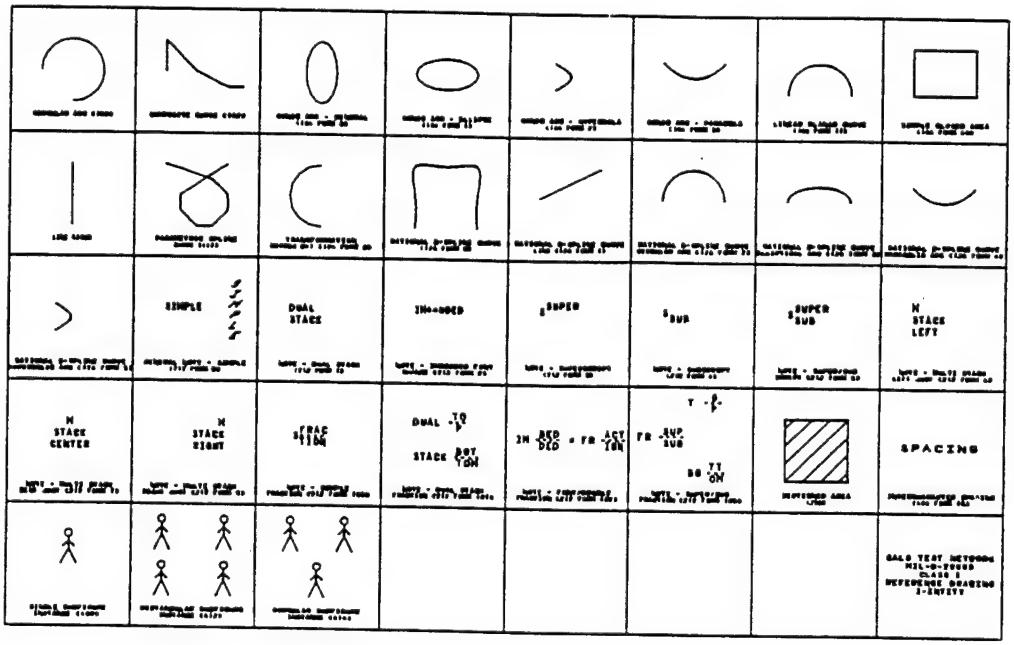
```
 *** Entity type: 212

       129 text strings in data file.
       Average text aspect ratio in file is 0.9982937.
       Minimum text aspect ratio in file is 0.7978667.
       Maximum text aspect ratio in file is 1.4857143.

       FONTS USED IN FILE

       FONT    COUNT    NAME

          1      127    Default ASCII Style
       1002        2    Symbol Font 2

 *** Entity type: 230

 *** Entity type: 308

  Subfigure name at D      19: 'subfig0'.
    Number of included entities = 6.

 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406

 *** Entity type: 408

  Subfigure instance at D    363 references subfigure at D     19.
  Subfigure instance at D    373 references subfigure at D     19.
  Subfigure instance at D    377 references subfigure at D     19.
  Subfigure instance at D    381 references subfigure at D     19.
  Subfigure instance at D    385 references subfigure at D     19.
  Subfigure instance at D    389 references subfigure at D     19.
  Subfigure instance at D    393 references subfigure at D     19.
  Subfigure instance at D    397 references subfigure at D     19.

 *** Entity type: 410

  Scale of view at D       1 is 1.000000E+00.
Orthographic View entity at D       1 has  0 clipping planes specified.
   XMIN = Not Set        XMAX = Not Set
   YMIN = Not Set        YMAX = Not Set
   ZMIN = Not Set        ZMAX = Not Set
```

```
 *** Message Summary ***

2015: 2 Mathematically incorrect definitions.
2018: 1 Problems with line weight/width display information.

 *** Error Summary ***

     0 fatal errors
     0 severe errors
     0 errors
     2 warnings
     1 cautions
     0 nitpicks
     1 notes

 *** End of Analysis of /novell/9325/q206.igs ***
```

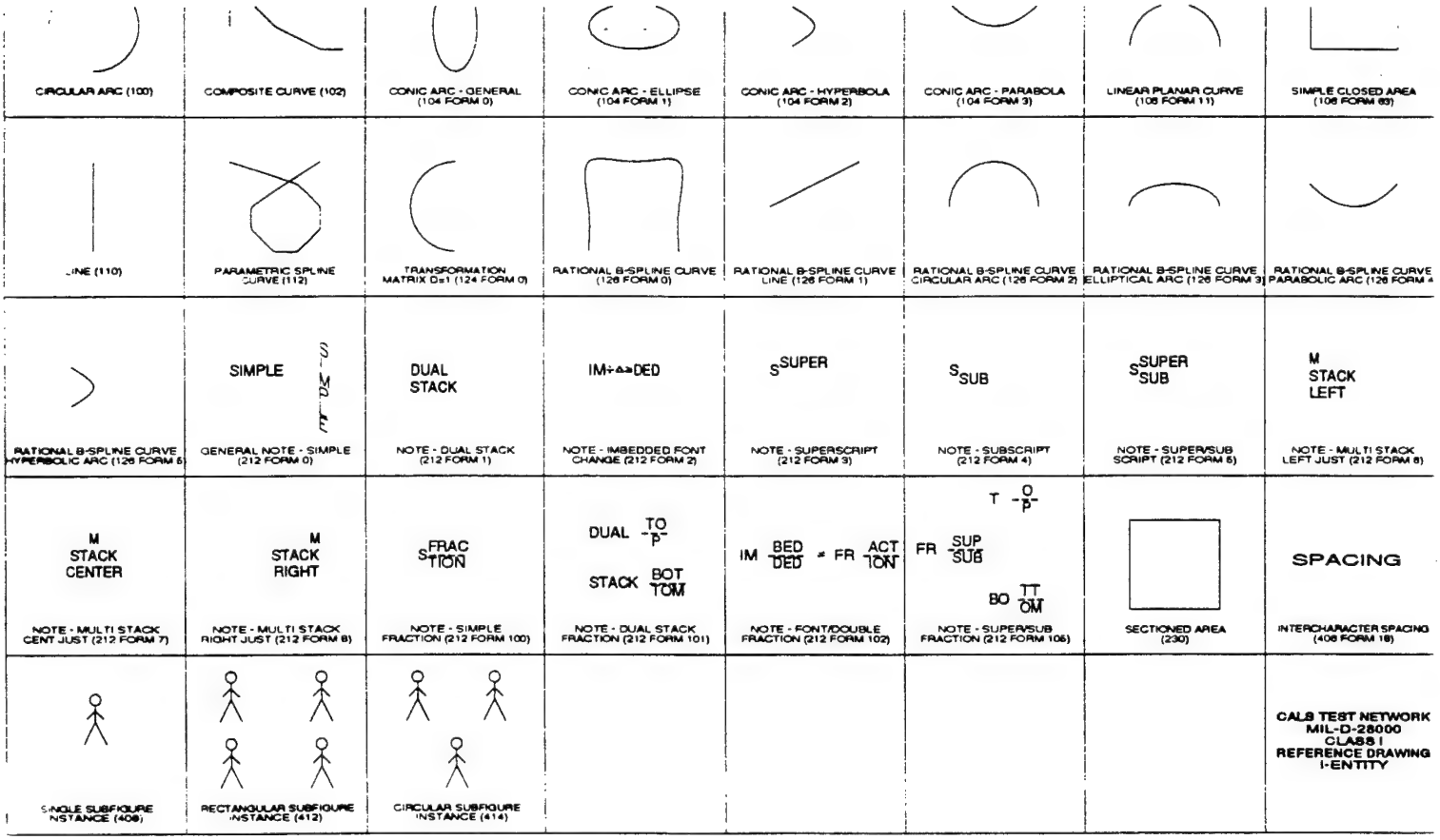
10.3.2 Output IGESView



10.3.3 Output IGESWorks



10.3.4 Output iges2draw/IslandDraw



10.4 File D002Q007

10.4.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9325/q207.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 25, 1993  12:12 AM

*** File and Product Name Information ***

   File name from sender     = 'lgtable.igs'
   File creation Date.Time   = '930225.134240'
   Model change Date.Time    = ''
   Author                    = 'FARRELL'
   Department                = 'Air Force CALS Test Network'
   Product name from sender  = 'lgtable.igs'
   Destination product name  = 'lgtable.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version  = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale            =  1.0000E+00
   Unit flag              =  1
```

```
   Units                  =  'IN'
   Line weights           =  5
   Maximum line thickness =  4.735348E-02
   Minimum line thickness =  9.470696E-03
   Granularity            =  1.000000E-03
   Maximum coordinate     =  9.391507E+00

   Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

 Blank status: Visible                      280
               Blanked                        0

 Independence: Independent                  267
               Physically Subordinate        11
               Logically Subordinate          2
               Totally Subordinate            0

 Entity use:   Geometry                     226
               Annotation                    54
               Definition                     0
               Other                          0
               Logical/Positional             0
               2D parametric                  0
               Not Specified                  0

 Hierarchy:    Structure DE applies           0
               Subordinate DE applies       280
               Hierarchy property applies     0
               Not Specified                  0

*** Entity Occurrence Counts ***

 Entity   Form   Level    Count    Type
 ------   ----   -----    -----    ----

   100       0       0       85    Circular arc
   102       0       0        2    Composite curve
   104       1       0        5    Conic arc - ellipse
   110       0       0      116    Line
   112       0       0       12    Parametric spline curve
   124       0       0        5    Transformation matrix
   212       0       0       47    General note
   230       0       0        5    Sectioned area (Standard Crosshatching)
   404       0       0        1    Drawing
   406      16       0        1    Property - Drawing size
```

410 0 0 1 View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	280

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 280

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
85	2	5	-	-	107	12	-	Solid
-	-	-	-	-	9	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	5	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

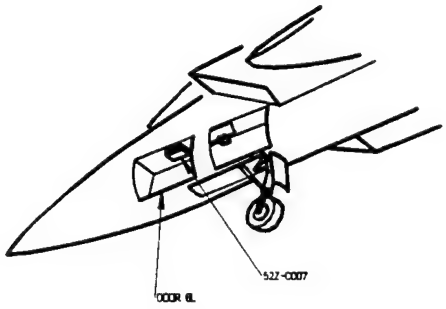
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

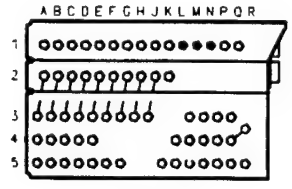
*** Line Widths Used in Data ***

```
    Weight       Count      Width

  Defaulted        73       (0.0095)
       3           22       (0.0284)
       2          123       (0.0189)
       4           62       (0.0379)

 *** Colors Used in Data ***

  Defaulted       196
       Blue        22
       Cyan        62

 ********************************
 ******  ENTITY ANALYSIS  ******
 ********************************

 *** Entity type: 100

 *** Entity type: 102

 *** Entity type: 104

WARNING 2265: Start point off conic by 7.999625E-03 at D     73.
WARNING 2265: Start point off conic by 1.788987E-02 at D     81.
WARNING 2039: End point off conic by 1.581491E-03 at D      81.
WARNING 2265: Start point off conic by 1.594810E-02 at D    141.
WARNING 2265: Start point off conic by 3.114898E-02 at D    191.

 *** Entity type: 110

  --   116 lines averaging 5.326830E-01 units --

 *** Entity type: 112

 *** Entity type: 124

5 transformation matrices, 5 non-zero translations.
NOTE    2341: 5 matrices contain translation information.

 *** Entity type: 212

       47 text strings in data file.
       Average text aspect ratio in file is 0.7899129.
       Minimum text aspect ratio in file is 0.7580039.
       Maximum text aspect ratio in file is 1.0525425.
```

```
       FONTS USED IN FILE

       FONT    COUNT    NAME

          1       47    Default ASCII Style

 *** Entity type: 230

 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406

 *** Entity type: 410

  Scale of view at D       1 is 1.000000E+00.
Orthographic View entity at D       1 has  0 clipping planes specified.
   XMIN = Not Set        XMAX = Not Set
   YMIN = Not Set        YMAX = Not Set
   ZMIN = Not Set        ZMAX = Not Set

 *** Message Summary ***

2015: 5 Mathematically incorrect definitions.

 *** Error Summary ***

     0 fatal errors
     0 severe errors
     0 errors
     5 warnings
     0 cautions
     0 nitpicks
     1 notes

 *** End of Analysis of /novell/9325/q207.igs ***
```

10.4.2 Output IGESView

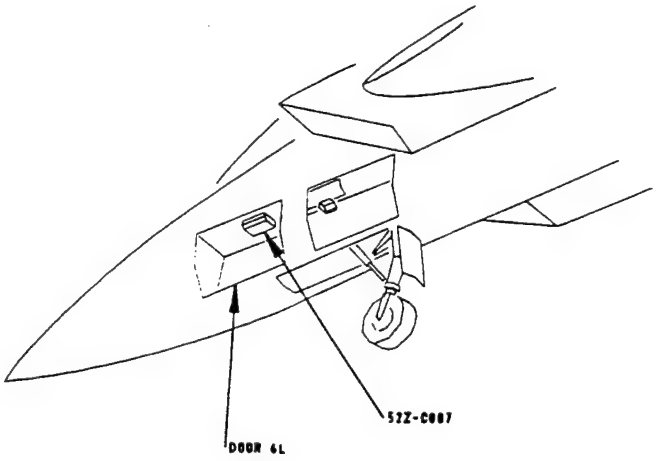


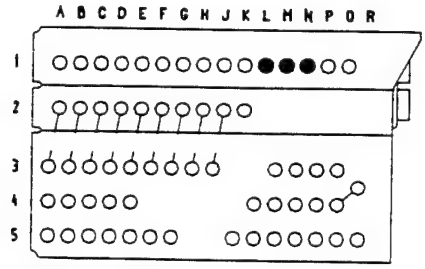


52Z-C007

52Z-C007	ESSENTIAL CIRCUIT BREAKER PANEL NO 1		(24-50-02)
REF DES	ZONE	NOMENCLATURE	BUS
4 C80033	L1	R MLG WOW PWR	28VDC ESS 28VDC
4 C80034	M1	L MLG WOW PWR	28VDC ESS 28VDC
4 C80035	M1	LDG GR POS IND	28VDC ESS 28VDC

10.4.3 Output IGESWorks



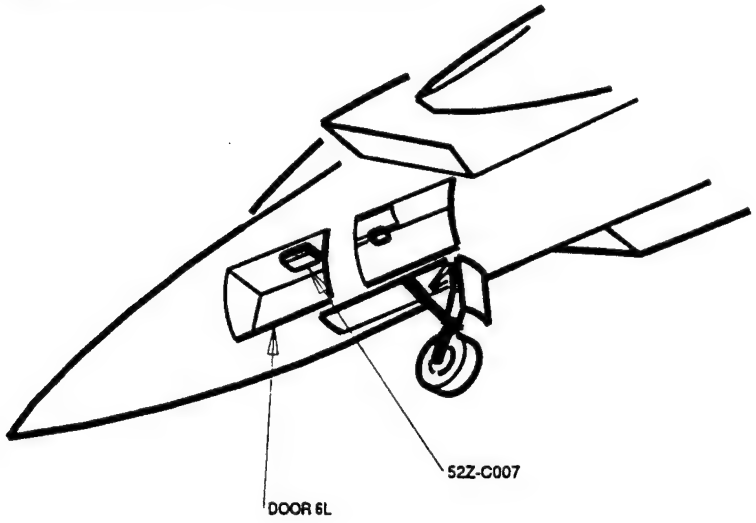


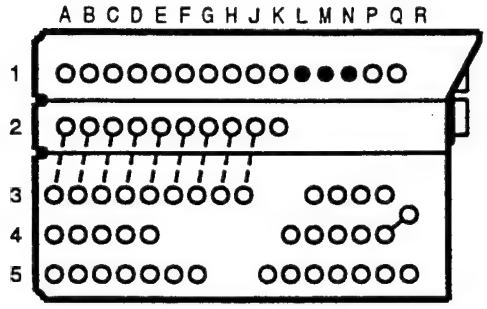
52Z-C007

52Z-C007	ESSENTIAL CIRCUIT BREAKER PANEL NO. 1		(24-50-12)
REF DES	ZONE	NOMENCLATURE	BUS
41CBC033	L1	R MLG WOW PWR 28VDC	ESS 28VDC
41CBC034	M1	L MLG WOW PWR 28VDC	ESS 28VDC
42CBC005	N1	LDG GR POS IND 28VDC	ESS 28VDC

CALS Test Network LGTABLE Reference Illustration

10.4.4 Output iges2draw/IslandDraw





52Z-C007

52Z-C007	ESSENTIAL CIRCUIT BREAKER PANEL NO. 1		(24-50-1
REF DES	ZONE	NOMENCLATURE	BUS
41CBC033	L1	R MLG WOW PWR 28VDC	ESS 28VDC
41CBC034	M1	L MLG WOW PWR 28VDC	ESS 28VDC
42CBC005	N1	LDG GR POS IND 28VDC	ESS 28VDC

11. Appendix C - Detailed SGML Analysis

11.1 Parser Log

```
            SGML Document Type Definition Parser
                An SGML System Conforming to
              International Standard ISO 8879
            Standard Generalized Markup Language

Log file: '9325a.LOG'
SDO File: 'ctndecl.sdo'
Namecase General is yes.
Namecase Entity is no.
Parsing DTD file: '9325a.dtd'

DTD0095: Start tag for element 'DATABASE' cannot be omitted if the
         element had declared content (CDATA, RCDATA, EMPTY).
DTD0095: Start tag for element 'MEDIUM' cannot be omitted if the
         element had declared content (CDATA, RCDATA, EMPTY).
DTD0096: The generic ID SHORTTITLE has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID CONTASSURPG has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID REFDOC has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID CFGPGE has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID COVERINDEX has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID STALOC has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID TESTCODE has not been used in any content
         model, inclusion, or as a doctype element.
This DTD conforms to the ISO 8879 standard

DTO file '9325a.DTO' created

closing statistics:
    Capacity points:                72200
    Bytes of DTO file string space: 12765
    SGML descriptor blocks:         7138

Document Type Definition is compliant and parsed normally.

Program status code: 0.
```

11.2 Exoterica XGMLNormalizer Parser

No reported errors.

11.3 Exoterica Validator Log

```
<!-- Entity has no name, system id or public id in formal file -->.
<!-- **Warning** in "9325.sgm", line 517:
   An EMPTY element must have a start tag and must not have an end tag.
   Therefore, it is inappropriate to specify an omissible start tag or an
   inomissible end tag in its declaration.
   The element is "DATABASE".
   <!ELEMENT database        - -       EMPTY      >
                                       ^^^^^

-->
<!-- **Warning** in "9325.sgm", line 599:
   An EMPTY element must have a start tag and must not have an end tag.
   Therefore, it is inappropriate to specify an omissible start tag or an
   inomissible end tag in its declaration.
   The element is "MEDIUM".
   <!ELEMENT medium          - -             EMPTY>
                                             ^^^^^

-->
<!-- **Warning**:
   An element with mixed content should permit data characters ("#PCDATA")
   everywhere.
   The element being declared is "NOTICE".
   ((((#PCDATA | ftnref | xref | indxflag | verbatim |
        ^^^^^^

-->
<!-- **Warning**:
   An element with mixed content should permit data characters ("#PCDATA")
   everywhere.
   The element being declared is "INTERNATLSTD".
   ((((#PCDATA | ftnref | xref | indxflag | verbatim |
        ^^^^^^

-->
<!-- **Warning**:
   An element with mixed content should permit data characters ("#PCDATA")
   everywhere.
   The element being declared is "HOWTOUSE".
   ((((#PCDATA | ftnref | xref | indxflag | verbatim |
        ^^^^^^

-->
```

```
<!-- **Warning** in "9325.sgm", line 1361:
   An element with mixed content should permit data characters ("#PCDATA")
   everywhere.
   The element being declared is "CALLOUT".
   <!ELEMENT callout              - -       (#PCDATA | graphic)           >
                                                                  /\
-->
<!-- **Warning**:
   An element with mixed content should permit data characters ("#PCDATA")
   everywhere.
   The element being declared is "ENTRY".
   ((((#PCDATA | ftnref | xref | indxflag | verbatim |
        ^^^^^^
-->
<!-- **Warning**:
   An element with mixed content should permit data characters ("#PCDATA")
   everywhere.
   The element being declared is "FTNOTE".
   ((((#PCDATA | ftnref | xref | indxflag | verbatim |
        ^^^^^^
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "CFGPGE".
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "CONTASSURPG".
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "COVERINDEX".
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "ENTRYTBL".
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "REFDOC".
-->
<!-- **Warning** in "9325.sgm", line 1612:
```

```
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "SHORTTITLE".
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "STALOC".
-->
<!-- **Warning** in "9325.sgm", line 1612:
   An element is not allowed in the document instance because it does not
   appear in any accessible content model or it is completely excluded.
   The element is "TESTCODE".
-->
<!-- 16 warnings reported. -->
```

11.4 Public Domain sgmls Log

No reported errors.

12. Appendix D - Detailed CGM Analysis

12.1 File D001C004

12.1.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:33

Metafile Examined    : i:\9325\c104

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:35

Name of CGM under test: i:\9325\c104.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "allreal.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"
```

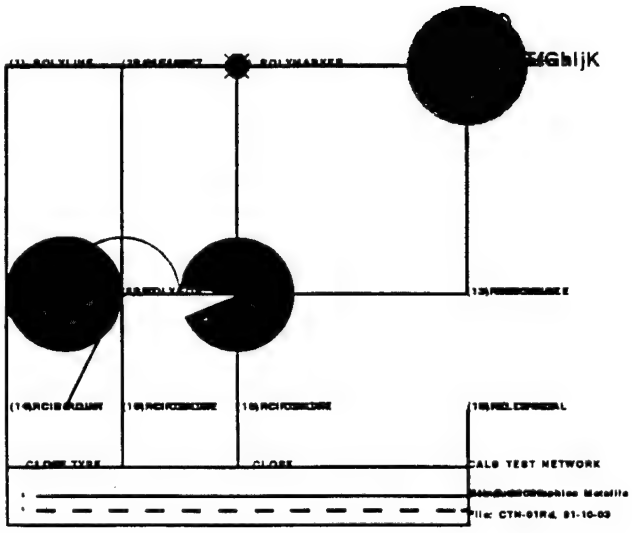
```
Picture 1 starts at octet offset 202; string contains: "Picture 1"

Conformance Summary  :  This file conforms to the CGM specification.
                        This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
        272 Elements Tested
       3980 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report ==================
```

12.1.2 validcgm Log

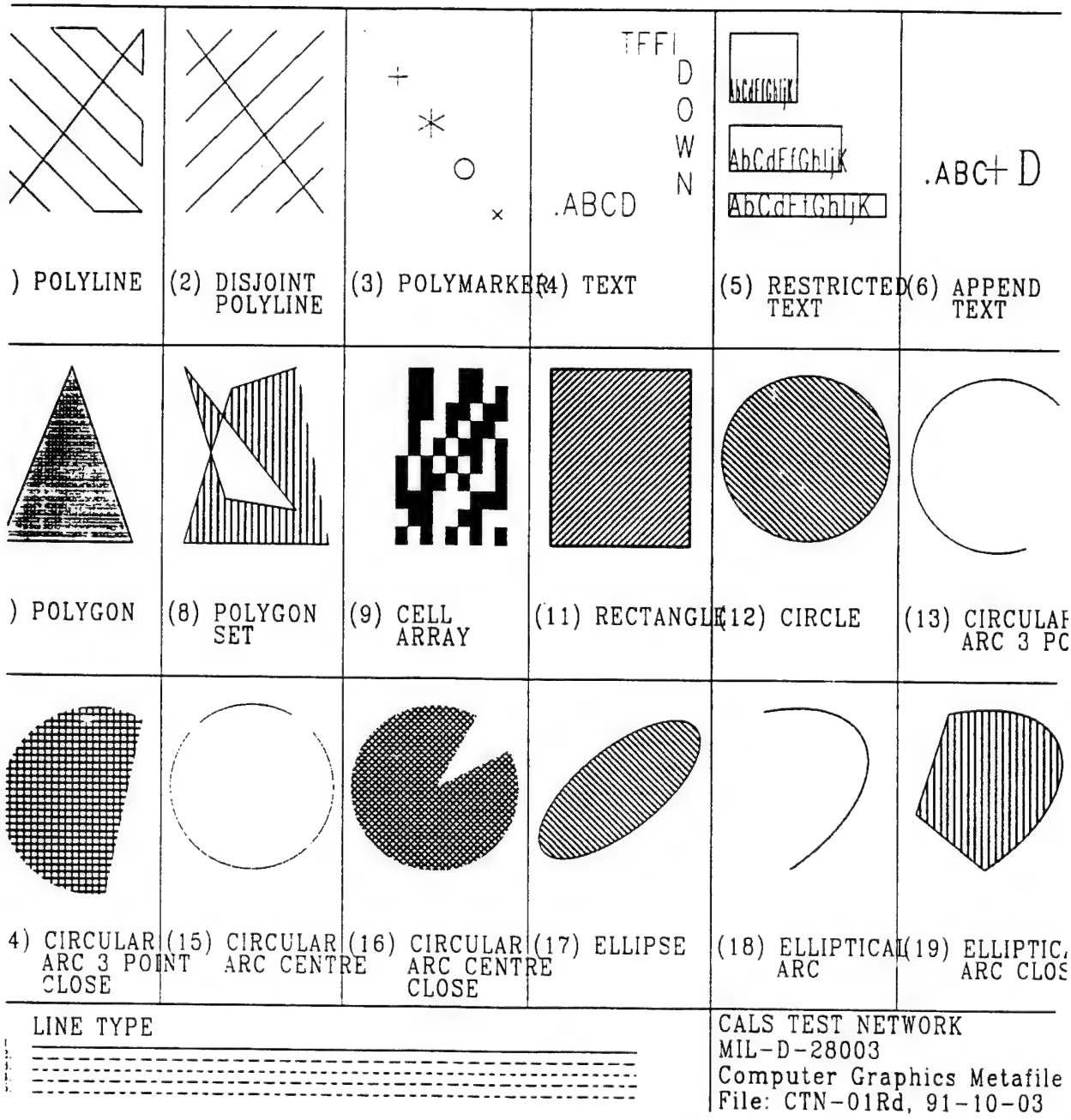
```
Analysis for file c104.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)         (3, 6, 2)       Clip Indicator OFF
MILSPEC 28003 error: illegal hatch index
(173, 2354)       (5, 24, 2)      Hatch Index 6
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
```

(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
(4, 1) occurred 32 times
(4, 3) occurred 5 times
(4, 4) occurred 50 times
(4, 7) occurred 3 times
(4, 9) occurred 1 time
(4, 12) occurred 2 times
(4, 15) occurred 3 times
(4, 16) occurred 2 times
(4, 17) occurred 2 times
(4, 18) occurred 2 times
(4, 19) occurred 1 time
(5, 2) occurred 17 times
(5, 3) occurred 17 times
(5, 4) occurred 17 times
(5, 6) occurred 5 times
(5, 7) occurred 5 times
(5, 8) occurred 5 times
(5, 10) occurred 3 times
(5, 12) occurred 5 times
(5, 13) occurred 1 time
(5, 14) occurred 7 times
(5, 15) occurred 5 times
(5, 16) occurred 7 times
(5, 17) occurred 4 times
(5, 18) occurred 1 time
(5, 22) occurred 10 times
(5, 23) occurred 8 times
(5, 24) occurred 7 times
(5, 27) occurred 2 times
(5, 28) occurred 2 times
(5, 29) occurred 2 times
(5, 30) occurred 10 times
(5, 31) occurred 7 times
(5, 34) occurred 1 time

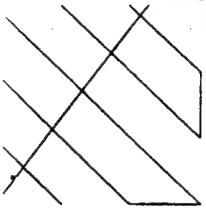
12.1.3 Output Harvard Graphics



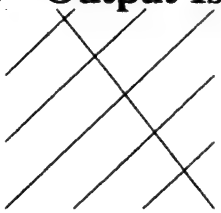
12.1.4 Output cgm2draw/IslandDraw



12.1.5 Output IslandDraw



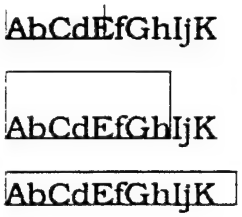
POLYLINE



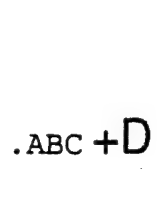
(2) DISJOINT POLYLINE

(3) POLYMARKER

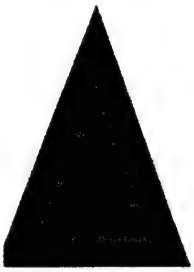
(4) TEXT



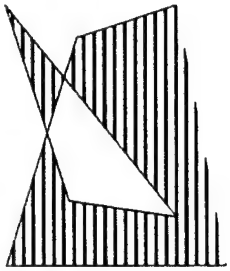
(5) RESTRICTED TEXT



(6) APPEND TEXT

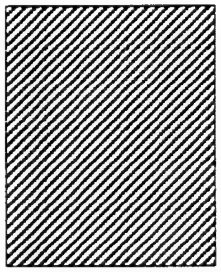


POLYGON

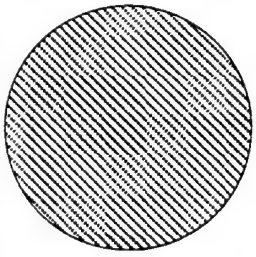


(8) POLYGON SET

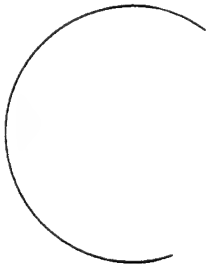
(9) CELL ARRAY



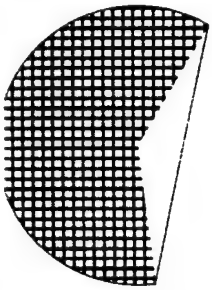
(11) RECTANGLE



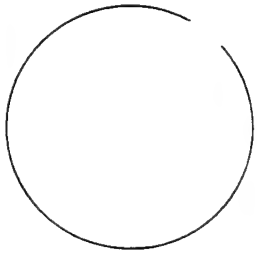
(12) CIRCLE



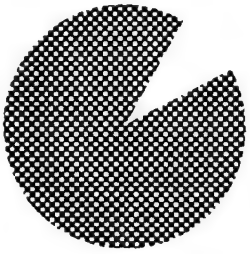
(13) CIRCULAR ARC 3 POINT



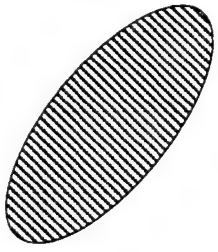
) CIRCULAR ARC 3 POINT CLOSE



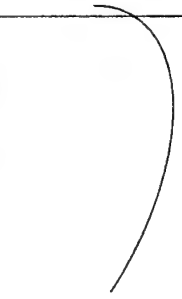
(15) CIRCULAR ARC CENTRE



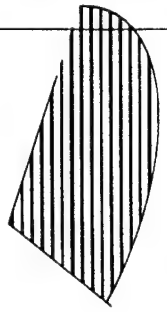
(16) CIRCULAR ARC CENTRE CLOSE



(17) ELLIPSE



(18) ELLIPTICAL ARC

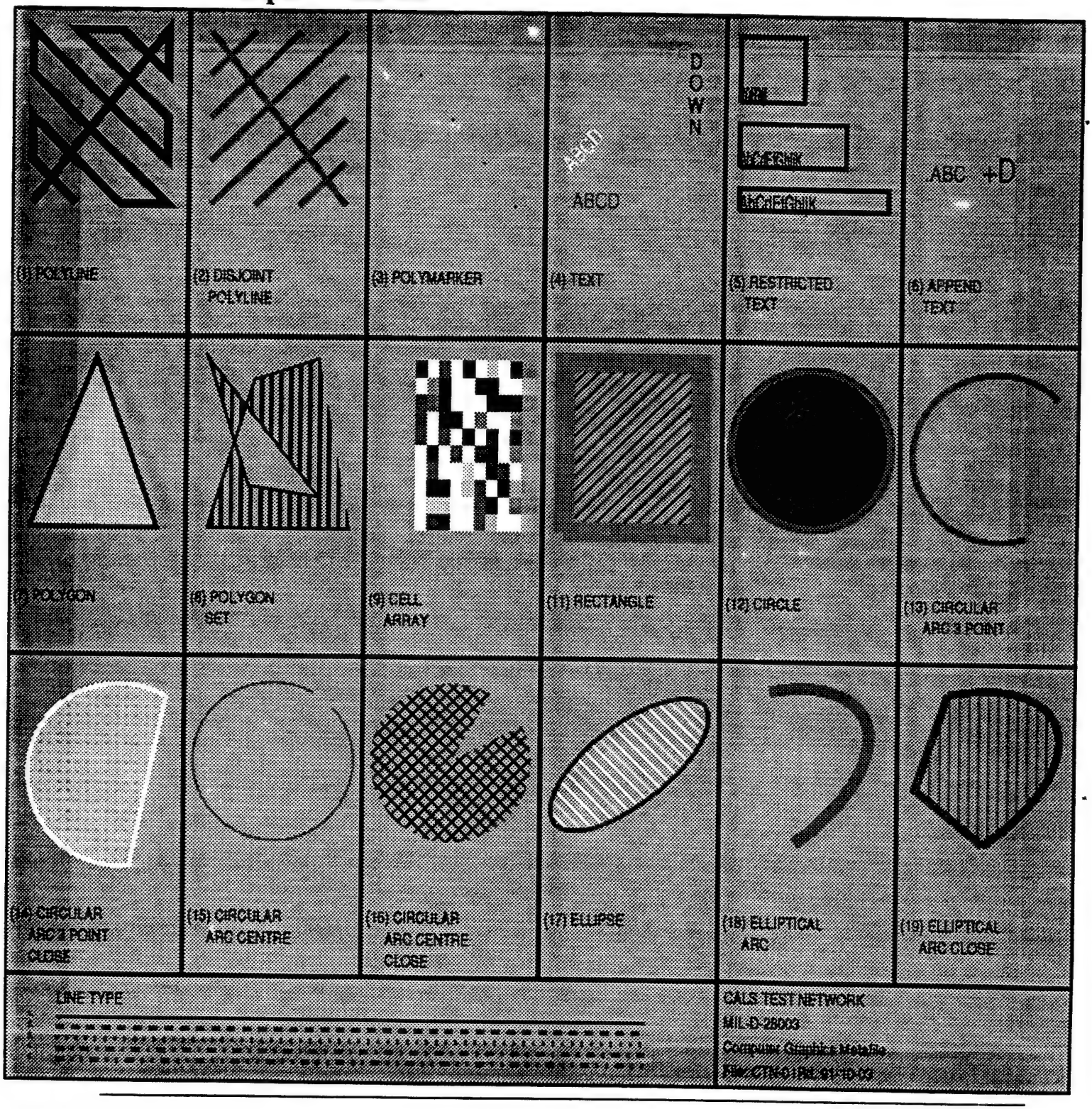


(19) ELLIPTICAL ARC CLOSE

LINE TYPE

CALS TEST NETWORK
MIL-D-28003
Computer Graphics Metafile
File: CTN-01Rd, 91-10-03

12.1.6 Output CadLeaf



12.2 File D001C005

12.2.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:36

Metafile Examined    : i:\9325\c105

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:38

Name of CGM under test: i:\9325\c105.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "arcs.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 154; string contains: "Picture 1"

Conformance Summary   :  This file conforms to the CGM specification.
```

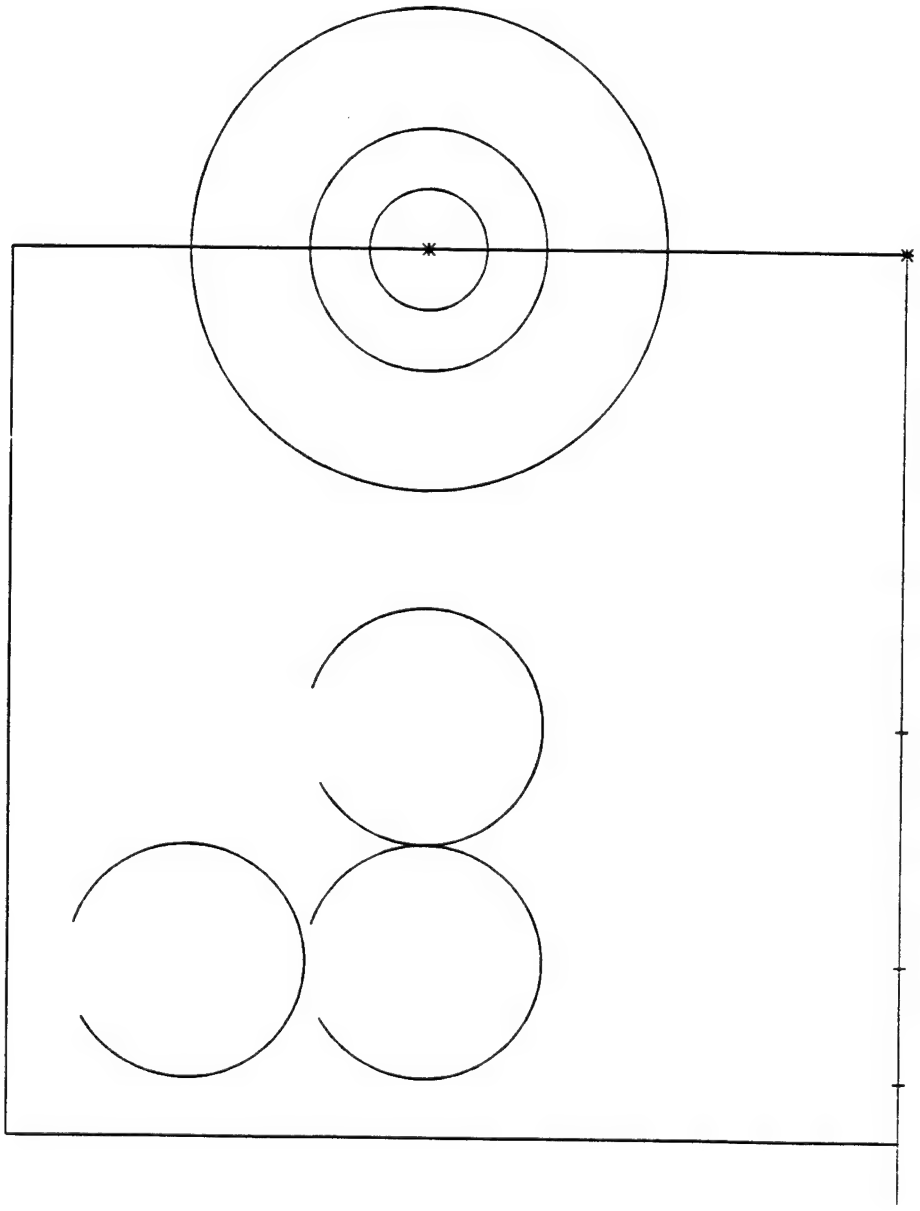
```
                    This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         62 Elements Tested
        942 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report ==================
```

12.2.2 validcgm Log

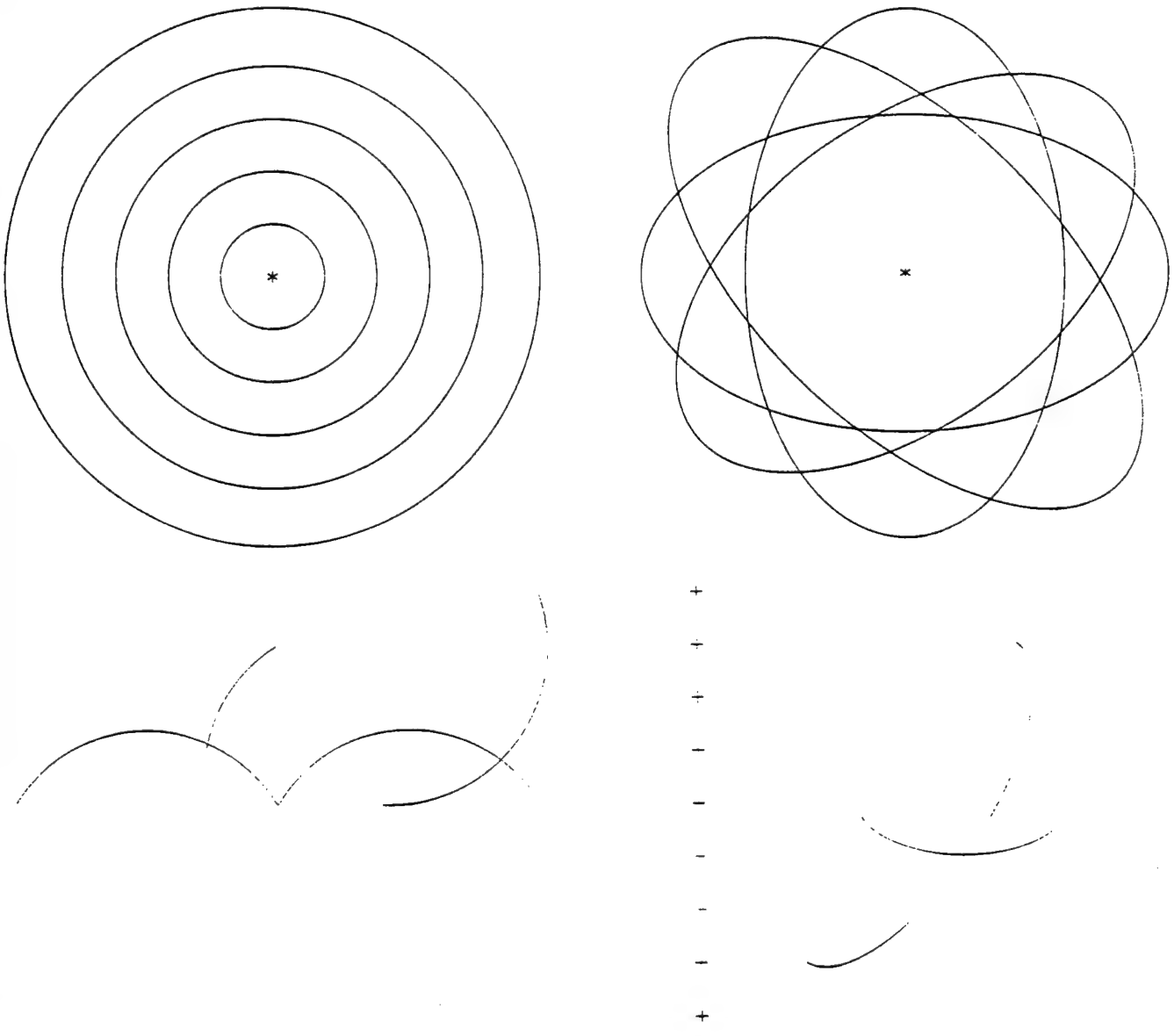
```
Analysis for file c105.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)         (3, 6, 2)       Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
(4, 1) occurred 2 times
```

(4, 3) occurred 3 times
(4, 12) occurred 5 times
(4, 15) occurred 4 times
(4, 17) occurred 4 times
(4, 18) occurred 2 times
(5, 2) occurred 5 times
(5, 3) occurred 5 times
(5, 4) occurred 4 times
(5, 6) occurred 2 times
(5, 7) occurred 1 time
(5, 8) occurred 1 time
(5, 22) occurred 1 time
(5, 23) occurred 1 time
(5, 34) occurred 1 time

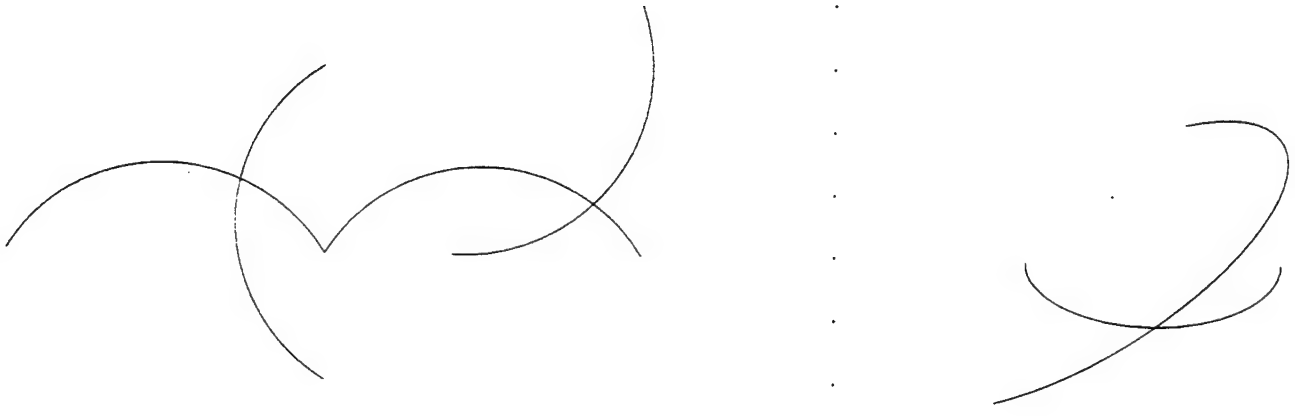
12.2.3 Output Harvard Graphics



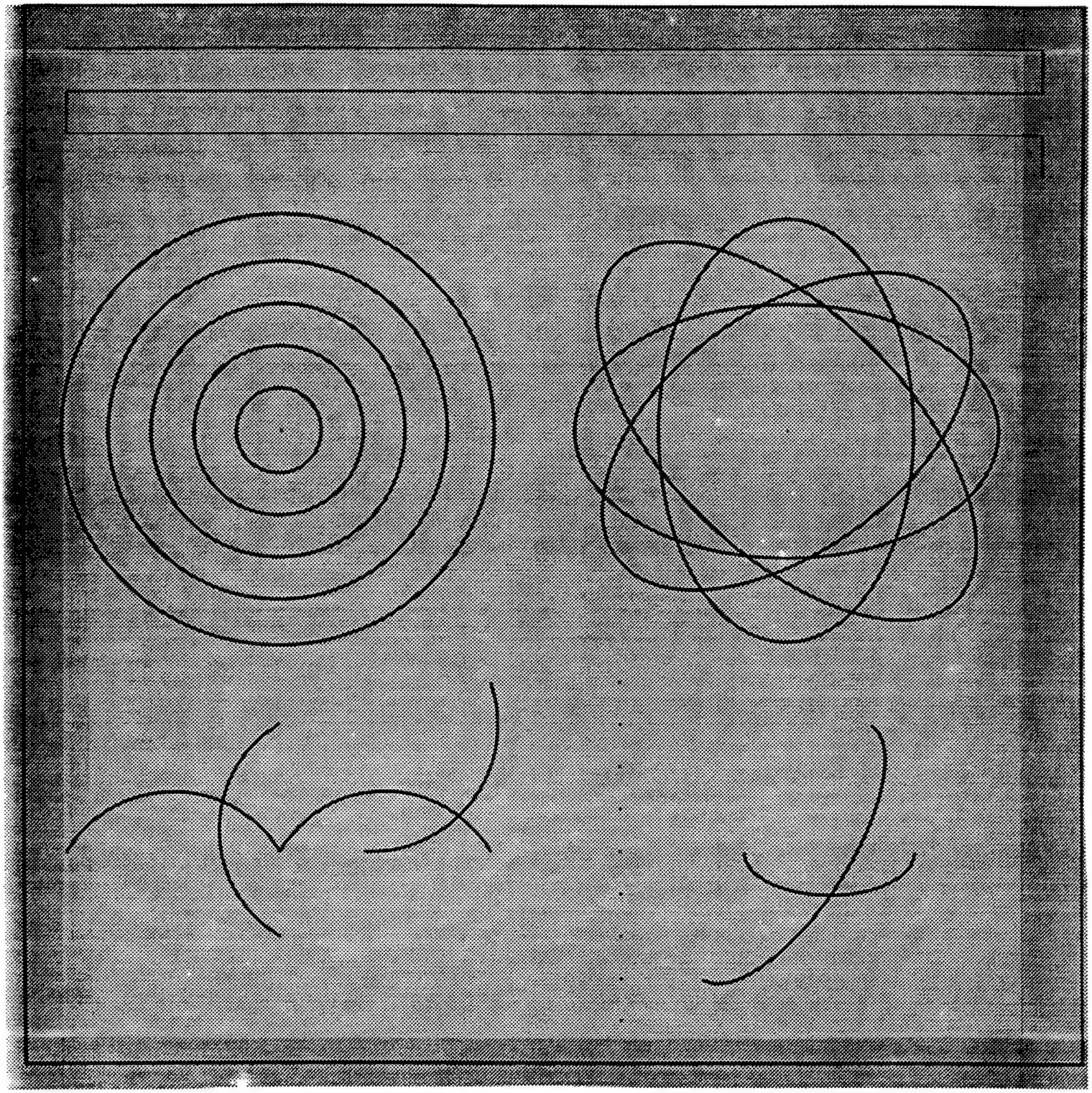
12.2.4 Output cgm2draw/IslandDraw



12.2.5 Output IslandDraw



12.2.6 Output CadLeaf



12.3 File D001C006

12.3.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:38

Metafile Examined    : i:\9325\c106

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:40

Name of CGM under test: i:\9325\c106.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "fills.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 154; string contains: "Picture 1"

Conformance Summary  :  This file conforms to the CGM specification.
```

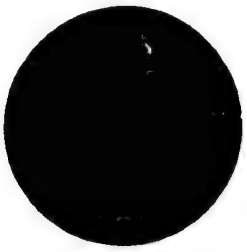
```
                    This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         56 Elements Tested
        856 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report ==================
```

12.3.2 validcgm Log

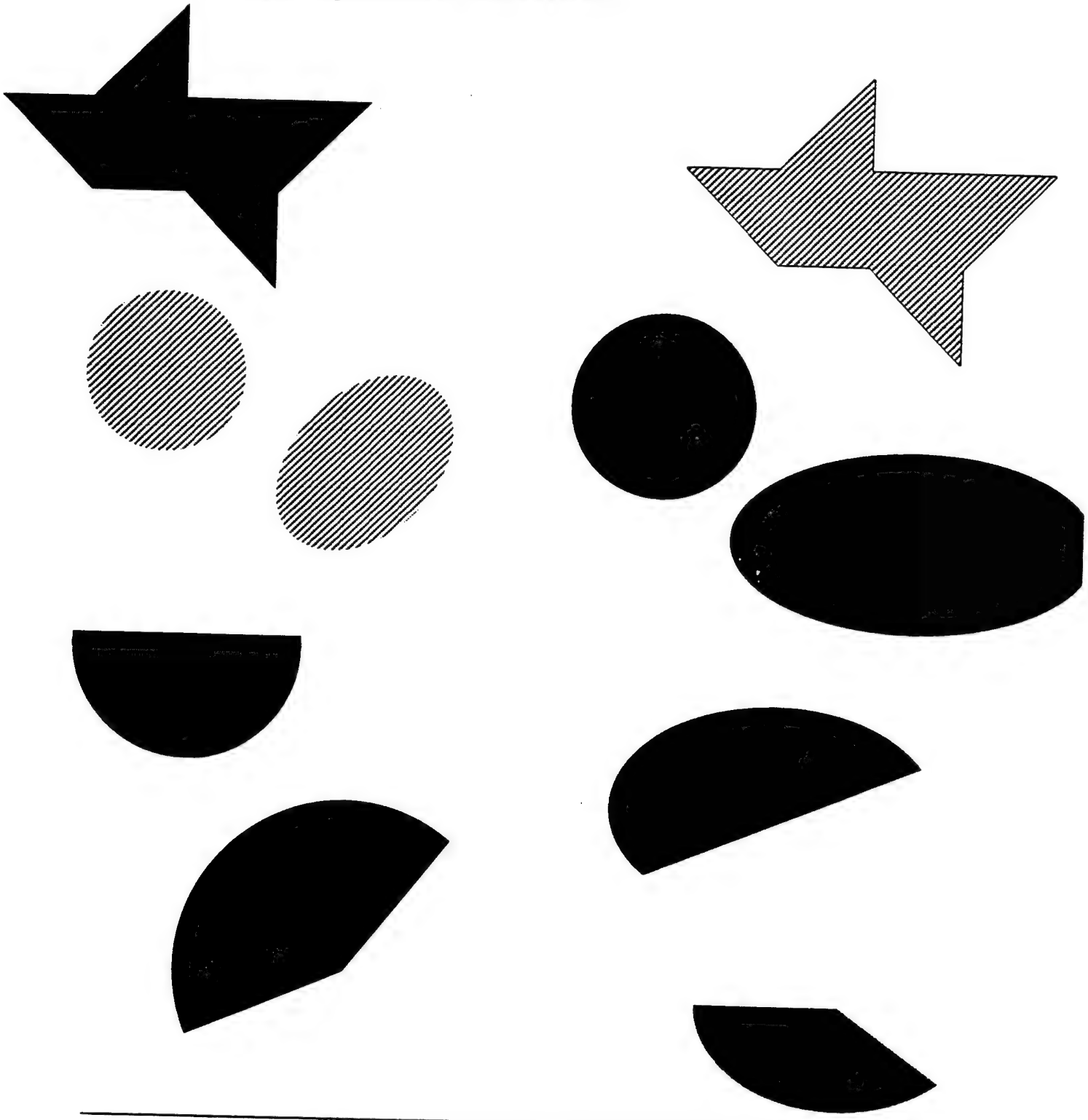
```
Analysis for file c106.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)         (3, 6, 2)       Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
(4, 1) occurred 1 time
```

(4, 7) occurred 2 times
(4, 12) occurred 2 times
(4, 16) occurred 2 times
(4, 17) occurred 2 times
(4, 19) occurred 2 times
(5, 2) occurred 1 time
(5, 3) occurred 1 time
(5, 4) occurred 1 time
(5, 22) occurred 6 times
(5, 23) occurred 6 times
(5, 24) occurred 1 time
(5, 30) occurred 6 times
(5, 31) occurred 1 time
(5, 34) occurred 1 time

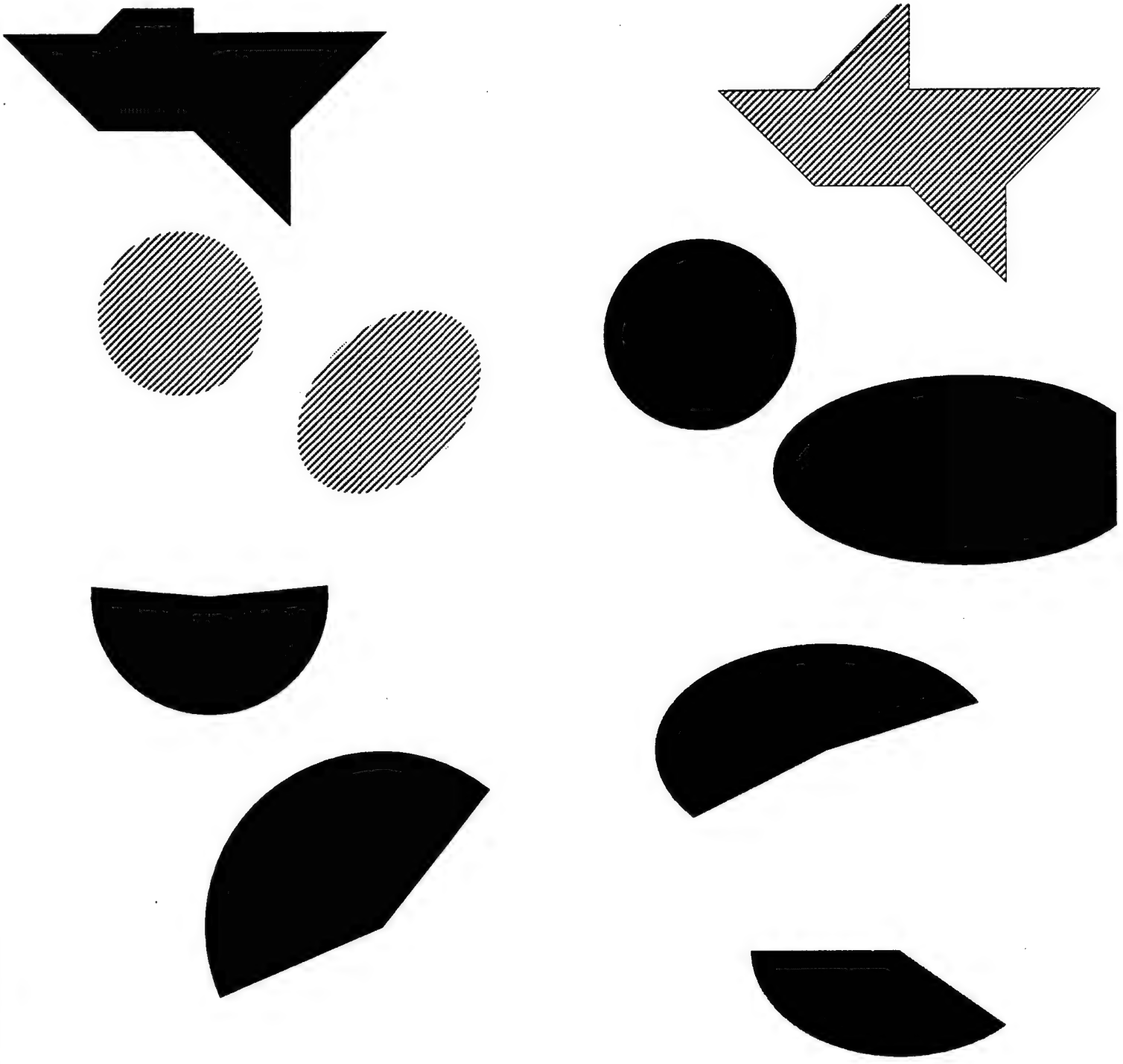
12.3.3 Output Harvard Graphics



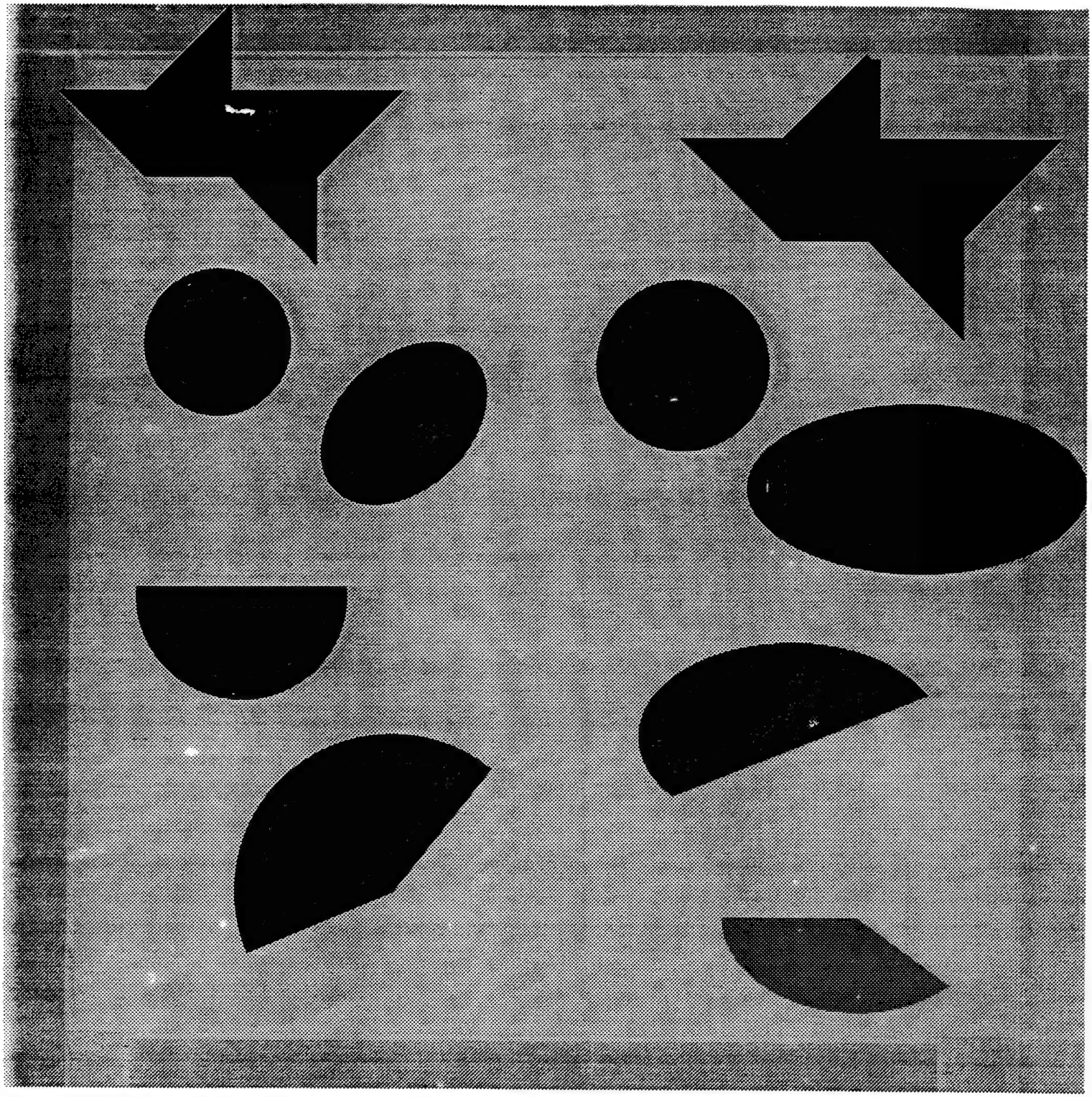
12.3.4 Output cgm2draw/IslandDraw



12.3.5 Output IslandDraw



12.3.6 Output CadLeaf



12.4 File D001C007

12.4.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:41

Metafile Examined    : i:\9325\c107

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:43

Name of CGM under test: i:\9325\c107.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "lines.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 130; string contains: "Picture 1"

Private values encountered in CGM
```

```
Conformance Summary  :  This file conforms to the CGM specification.
                        This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         71 Elements Tested
        664 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report ==================
```

12.4.2 validcgm Log

```
Analysis for file c107.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(13.1, 0)         (3, 6, 2)       Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
```

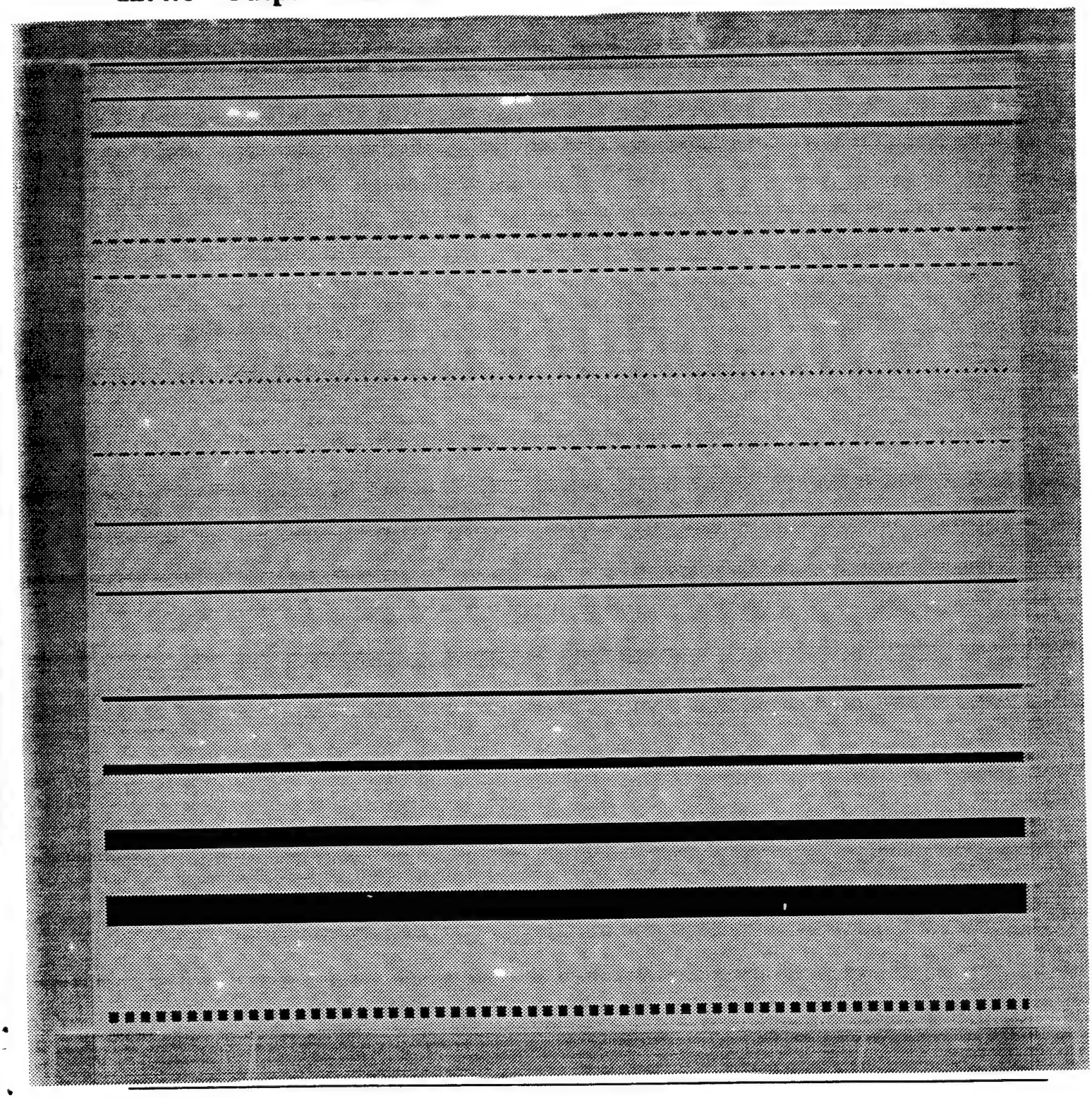
(4, 1) occurred 14 times
(5, 2) occurred 12 times
(5, 3) occurred 12 times
(5, 4) occurred 12 times
(5, 34) occurred 1 time

12.4.3 Output Harvard Graphics

12.4.4 Output cgm2draw/IslandDraw

12.4.5 Output IslandDraw

12.4.6 Output CadLeaf



12.5 File D001C008

12.5.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:43

Metafile Examined    : i:\9325\c108

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report ================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/25/93     Time:  08:24:45

Name of CGM under test: i:\9325\c108.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "text.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 178; string contains: "Picture 1"

Conformance Summary   :  This file conforms to the CGM specification.
```

```
                    This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         67 Elements Tested
        902 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report ==================
```

12.5.2 validcgm Log

```
Analysis for file c108.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)        (3, 6, 2)      Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
(4, 4) occurred 17 times
```

(5, 10) occurred 3 times
(5, 12) occurred 3 times
(5, 13) occurred 3 times
(5, 14) occurred 2 times
(5, 15) occurred 4 times
(5, 16) occurred 5 times
(5, 17) occurred 4 times
(5, 18) occurred 4 times
(5, 34) occurred 1 time

12.5.3 Output Harvard Graphics

TEXT 12

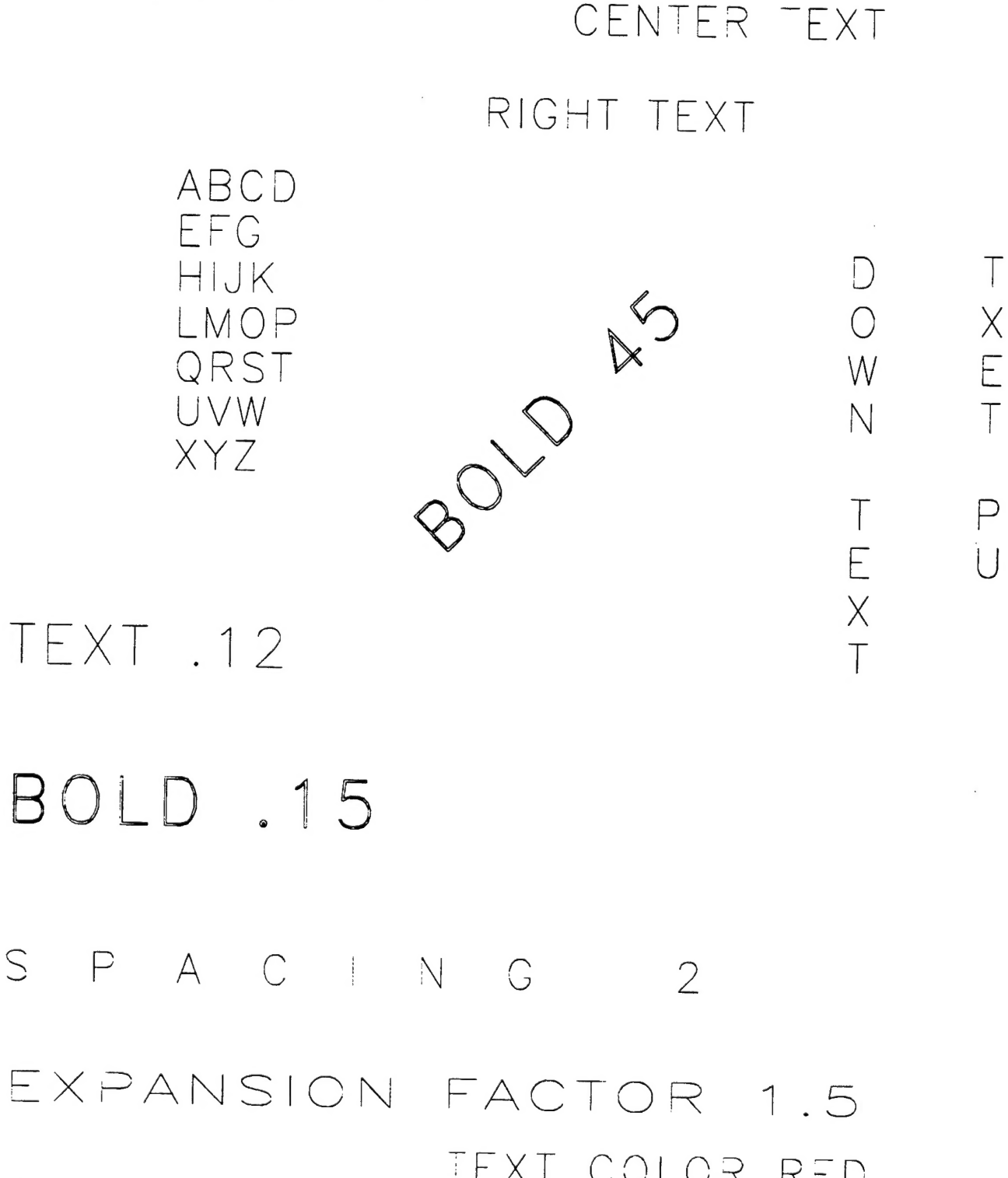
BOLD .15

SPACING 2

EXPANSION FACTOR 1.5

TEXT COLOR RED

12.5.4 Output cgm2draw/IslandDraw



12.5.5 Output IslandDraw

RIGHT TEXT

ABCD
EFG
HIJK
LMOP
QRST
UVW
XYZ

DOWN TEXT

BOLD 45

TEXT .12

BOLD .15

SPACING 2

EXPANSION FACTOR 1.5

TEXT COLOR RED

12.5.6 Output CadLeaf